

# local environment agency plan

## ROCH/IRK/MEDLOCK

ANNUAL REVIEW

MAY 2001



ENVIRONMENT AGENCY



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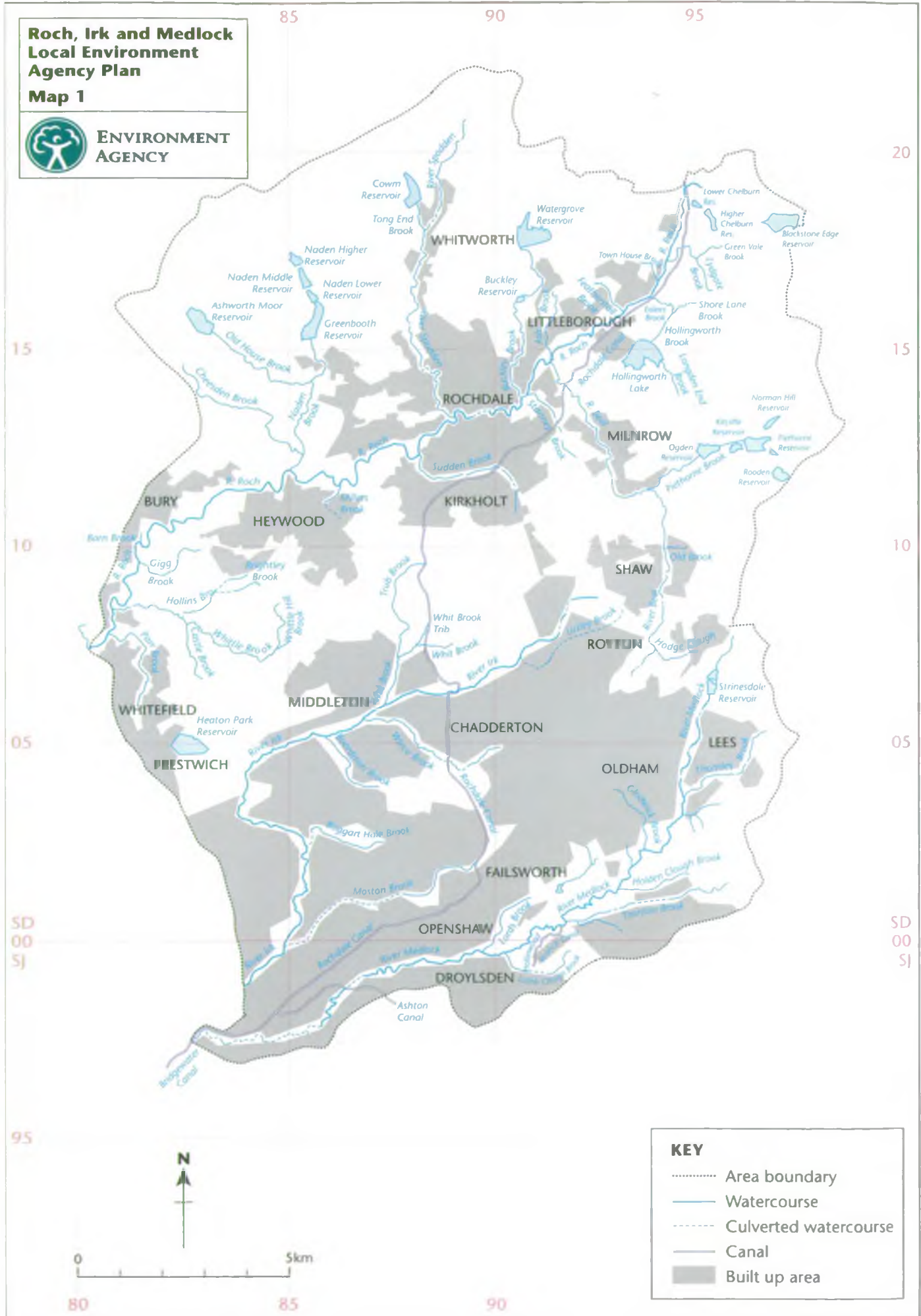
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**Roch, Irk and Medlock  
Local Environment  
Agency Plan**

**Map 1**



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## EXECUTIVE SUMMARY

The First Annual Review of the Roch/Irk/Medlock LEAP reports on the progress made from 1998 to 2000 against LEAP actions. The actions published in the LEAP are supplemental to our everyday work on monitoring, surveying and regulating to protect the environment. Some of the key achievements in our everyday work include:

- Reduction of Methyl-chloride emissions at Akzo Nobel Chemicals Ltd, Littleborough by approximately 50 tonnes per year following installation of new plant.
- 38 unsatisfactory overflows in the River Irk catchment and 25 in the River Roch catchment were identified. The Agency has successfully secured AMP3 funding to improve all of these overflows between 2000 and 2005.
- Landfill tax credit monies awarded to River Medlock Rehabilitation Scheme, a multi-functional scheme to rehabilitate a stretch of the River Medlock at Clayton Vale, Manchester. Works will include improved footpaths, ponds, wetlands, reed beds, fish passes and some channel works.
- Pollution Prevention Campaign undertaken at Birch Industrial Estate in Rochdale.
- Two year programme of targeted enforcement of unauthorised metals recycling sites undertaken.
- The Agency has supported the development of Green Business Parks including Stakehill Industrial Estate.
- New flood warning codes implemented on 12 September 2000.
- The Environment Agency contributed £700 to a survey aimed at identifying sites where water voles were found in the rivers Medlock and Tame catchments in 2000.

The Annual Review seeks to look forward and identify future priorities to protect and enhance the environment – it is a 'living' document, and priorities will change over the course of the LEAP programme. The Agency welcomes comments regarding the content of the LEAP Annual Review from all sectors including business, industry, voluntary groups and the community.



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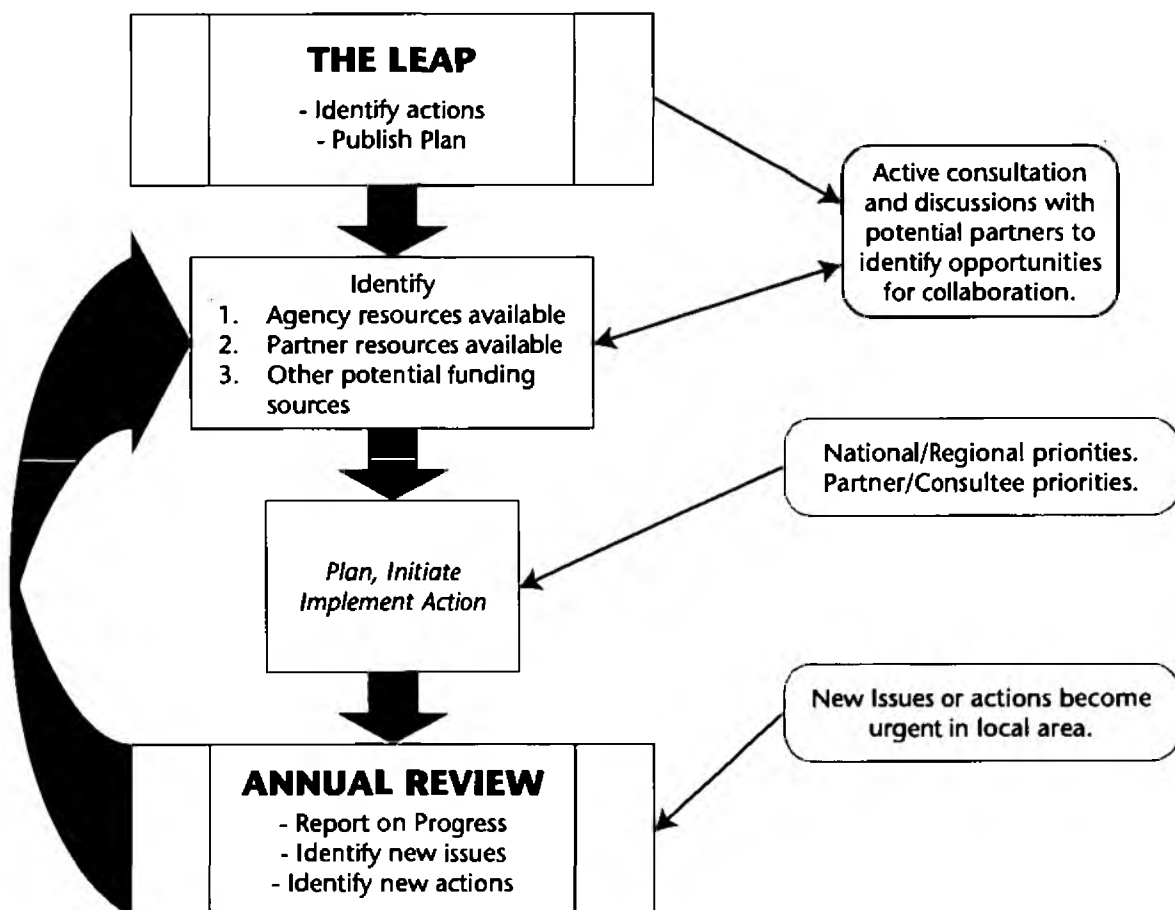
## INTRODUCTION AND THE LEAP PROCESS

The Roch/Irk/Medlock LEAP is a working document covering the five-year period 1998-2003, and publicises actions that are or could be ongoing in the local area to address local environmental issues. It seeks to encourage support for and involvement in these projects from prospective partners.

The first review reports on the progress made since the LEAP was published in March, 1998 and contains the following information:

- I details of key achievements for 1998/2000,
- II update on activities against LEAP actions and 'we will' statements,
- III identified priorities/actions for 2000 onwards,
- IV highlights of a successful partnership initiative.

### Process for Developing the Final Plan into Action



The highlighted tinted box represents the current focus for progressing the LEAP. We will be seeking to determine the scale of current activities in the area, and identifying opportunities to work with others to achieve the objectives and progress actions of the LEAP (November 1998). Annual Reviews of the LEAP will normally take place in each subsequent year, until a full re-assessment is undertaken after five years.

This review provides an opportunity to highlight the work that has been undertaken and the progress that has been made against the published LEAP actions. Each of the following sections gives a brief comment on the stated commitments made in the LEAP, while the tables summarise the published LEAP actions.

The review should be seen as an invitation to get involved in collaborative environmental problem solving. Since the LEAPs are local plans, local interest and collaborative potential can help influence the priorities and encourage support for local issues.

Each section also provides a brief forward look, identifying the main areas for activity in the coming year. The following initiatives and pressures have influenced priorities for the forthcoming financial year and have directly influenced the resources that will be available to address LEAP actions:

- Implementing over the next two to three years, new regulatory duties resulting from European Directives, Government policies and Agency developments (see page 43);
- Implementing action resulting from lessons learned from flooding outside the area during 1998;
- Continuing to contribute to comprehensive reviews of abstraction licensing and fisheries legislation.

The following points should also be considered:

- **Agency Statutory Role**  
The LEAP does not include all of our statutory or regulatory work. Environmental protection and improvement is the aim underpinning all of our work, and the LEAP actions provide added value to this fundamental aim.
- **Resourcing the Actions**  
Actions will be progressed only when resources become available (via Agency and/or partner sources), and may also be subject to national and regional priorities. Some actions will require feasibility studies and cost-benefit appraisal of options prior to work being approved. The diagram (see page 3) shows the key stages in developing the plan into local action on the ground.
- **Linking Actions to Themes**  
In order to ensure that actions and issues are discussed under the most appropriate theme we continually assess and monitor reports and responses. This may result in some information changing location when compared to the Action Plan (November 1998). We will ensure this is kept to a minimum, with full references being provided.

## ACTIONS FOR THE ROCH/IRK/MEDLOCK AREA

### Quick Reference Guide to Issues

NB. The issues are not numbered in any order of priority or importance.

- The number previously given to issues in the Action Plan (AP).

| Issue No. | • AP Issue No.       | Description   | Page No. |
|-----------|----------------------|---|----------|
| 1         | NEW                  | Achieving local air quality objectives through regulation of Agency regulated processes   | 8        |
| 2         | 7                    | Adverse impact of discharges from United Utilities Ltd Wastewater Treatment Works (WwTW) on the aquatic environment                                 | 11       |
| 3         | 12                   | Aesthetic impact of quarry drainage from Aggregate Industries UK Ltd quarry on Tong End Brook and the River Spodden                                 | 12       |
| 4         | 14                   | Adverse impact of run-off from Industrial Estates   | 12       |
| 5         | 26                   | Lack of awareness and implementation of the government's strategy for sustainable waste management (The 'Waste Hierarchy')                          | 15       |
| 6         | 27                   | The adverse environmental impact of unauthorised waste management activities (including flytipping)   | 15       |
| 7         | NEW                  | Need to control the use of water to ensure the maintenance of a balanced and sustainable resource   | 17       |
| 8         | 8                    | Adverse impact of discharges from sewer overflows on the aquatic environment  | 22       |
| 9         | 9                    | Adverse impact of contaminated surface water discharges on the aquatic environment  | 23       |
| 10        | 11                   | Lack of public sewerage in the Whittle Brook catchment leading to localised pollution   | 23       |
| 11        | 13                   | Adverse impact of ochreous discharges on the aquatic environment  | 24       |
| 12        | 16                   | The presence of blue-green algae in Hollingworth Lake causing water quality concerns and loss of amenity  | 24       |
| 13        | 17, 18 & 20 combined | Lack of awareness and restricted access to watercourses for recreational activities   | 25       |
| 14        | 10                   | Incomplete understanding of the causes of adverse impacts on the aquatic environment  | 25       |
| 15        | 19                   | Dereliction adjacent to and within the watercourse is leading to increased flood risk, loss of built heritage and decrease in environmental quality | 26       |

| <b>Issue No.</b> | <b>• AP Issue No.</b> | <b>Description</b>   | <b>Page No.</b> |
|------------------|-----------------------|--|-----------------|
| 16               | 23                    | The need to balance the potential impacts of the restoration of the Rochdale canal   | 26              |
| 17               | 25                    | Impact of contaminated land on the environment   | 30              |
| 18               | 22                    | Properties at risk of flooding and the need for more effective flood warning   | 30              |
| 19               | 6                     | The need for restoration of freshwater fisheries as water quality improves   | 31              |
| 20               | 3 & 5 combined        | The need for continued habitat improvement and protection of existing wildlife habitats to conserve and enhance biodiversity | 34              |
| 21               | 4                     | Invasive non native pest species   | 36              |





## **Addressing Climate Change and Improving Air Quality**

Human activities such as energy generation, transport and agriculture are believed to contribute to climate change. Air quality is affected by economic development. Transport, energy generation and industry are the major sources of air pollution.

### ***Addressing Climate Change***

#### ***Background***

As part of its overall aim of contributing to sustainable development, the Agency is addressing climate change as part of its work.

We have not, however, identified any specific local issues relating to addressing climate change and therefore there are no issues in this section.

#### ***Improving Air Quality***

#### ***Background***

On a local scale responsibility for air quality is split between the Agency and Local Authorities. The Agency is responsible for the regulation of major industries, whilst local authorities regulate minor industries, control domestic smoke, evaluate local air quality and produce local air quality management plans.

One of the Agency's objectives is to reduce the amounts of organic-based solvents that are released into the atmosphere. These can contribute to the generation of ground-level ozone.

#### ***Key Achievements in 1998/2000:***

- Reduction of Methyl-chloride emissions at Akzo Nobel Chemicals Ltd, Littleborough by approximately 50 tonnes per year following installation of new plant.

#### ***Annual Review Commitments:***

**We will:** Develop an overall Air Quality Strategy for releases from processes prescribed under Integrated Pollution Control in the LEAP area, to ensure long term improvements in air quality.

#### ***Forward Look:***

- Ongoing commitments to plant improvement in regulated processes should result in improved air quality.

|             | Ref  | Action   | Timescale                                      | Costs | Responsibility<br>(Lead/Partners)     | Progress  |
|-------------|--|--|--|-------|---------------------------------------|---|
| AIR QUALITY | <i>ISSUE 1: Achieving local air quality objectives through regulation of Agency regulated processes. (NEW ISSUE)</i> |  |  |       |                                       |   |
|             | 1.1  | Assist the local authorities in implementing an overall air quality strategy by regulating releases from Agency authorised processes within the Roch/Irk/Medlock LEAP area | National Air Quality Targets to be met by 2005 | TBD   | Environment Agency, Local Authorities | Discussions have taken place between the Agency, Bury MBC, Oldham MBC, Manchester CC and Rochdale MBC. The Agency has provided information regarding IPC Part A processes and the Local Authorities have produced Air Quality Reviews and proposed air quality management areas |

TBD – To Be Determined.



## Regulating Major Industry

Industry is essential for the economy and well-being of society. We work to achieve a balance so that industrial activity does not harm the environment. Our aim is to ensure that the existing management and future regulation of industry is carried out in a sustainable manner.

### *Background*

There are a number of United Utilities (formerly North West Water Ltd) WwTWs which discharge treated sewage and industrial effluent to the LEAP area's watercourses.

Discharges from Oldham, Royton and Failsworth have, in the past, had significant impacts on the water quality of their receiving watercourses causing them to fail their River Ecosystem (RE) River Quality Objectives (RQO's). Discharges from Rochdale WwTW continue to have a significant impact.

In the previous Action Plan the issue of adverse impact of run-off from Industrial Estates related to the impact of discharges from Stake Hill Industrial Estate. In this annual review, the plan has been widened to include the impact of all industrial estates within the LEAP area.

As part of its Pollution Prevention and Waste Minimisation programme, the Agency works with industry to achieve a balance so that industrial activity does not harm the environment. Preventing pollution on industrial estates can, in some cases, prove time consuming for the Agency due mainly to high tenant turn-over. This results in a need for a continual programme of education and guidance. In addition, detecting pollution from industrial estates can prove difficult because many sites discharge surface water to small watercourses not routinely monitored by the Agency.

### *Update of Actions*

**United Utilities has completed Action 1.** Under AMP2, a £37 million improvement programme was undertaken at Royton, Oldham and Failsworth WwTWs. The work was completed in March 2000 and the Agency is now closely monitoring the effect these improvements are having in reducing organic loading in the WwTW effluents and the associated improvements in the quality of the River Irk, Wince Brook and the River Medlock respectively.

**The Agency has completed Action 2.** The Agency has identified that improvements at Rochdale WwTW are necessary in order to ensure that the River Roch downstream achieves its River Ecosystem RQO. Funding to carry out the improvements has been secured under the AMP3 investment programme and will be carried out by United Utilities before the end of March 2005.

**Action 3.** Work to evaluate the requirement for reduction in colour of the effluent from Rochdale WwTW is still on-going. Observations of the colour of the River Roch upstream and downstream of the discharge have already been collected for over 12 months. A decision on whether colour reduction is necessary is now unlikely to be made before 2001/2.

**Action 4.** Work is on going to determine whether there is a case for the River Roch downstream of Rochdale WwTW to be designated as a 'sensitive area'. A decision on this will be made by the Agency in late-2000/early-2001.

### ***Key Achievements in 1998/2000:***

- A Pollution Prevention Campaign has been undertaken at Birch Industrial Estate in Rochdale, with promising results. Pollution Prevention and Waste Minimisation are important principles in the educating and influencing role of the Agency.
- An additional sampling location has been added to try to determine the impact of the incoming stream on Cowm Reservoir, compared to the impact of the historical sediment already contained within the reservoir.
- The Agency is now a partner in the Green Business Parks scheme undertaken by the Groundwork organisation, who have started work on Stakehill Industrial Estate. Other estates will be prioritised according to their actual or potential impact on local watercourses.

### ***Annual Review Commitments:***

**We will:** Implement the EU Integrated Pollution Prevention and Control (IPPC) Directive, in conjunction with Local Authorities, through the Pollution Prevention and Control Regulations 2000.

The Agency and Local Authorities will have to work together to ensure implementation, and share expertise in the field of water discharges (mainly Agency expertise) and noise (mainly Local Authority expertise). These areas are subject to wider controls under the IPPC regulations, which were introduced in August 2000.

**We will:** Participate in the investment programme discussion between United Utilities and OFWAT to agree the significant investment in sewerage and sewage treatment for the period 2000-2005 (AMP3). Monitor improvements agreed under the AMP2 programme for the period 1995-2000.

The Agency continues to liaise with United Utilities and OFWAT in order to ensure that funding under AMP3 is directed to schemes where there is maximum environmental benefit.

### ***Forward Look:***

- The Agency will continue to monitor improvements in reducing organic loading (AMP2) in the WwTW effluents and the associated improvements in the River Irk, Wince Brook and the River Medlock.
- Improvements secured under the AMP3 investment programme will be carried out by United Utilities before the end of March 2005.
- Evaluate requirement for reduction in colour of the effluent from Rochdale WwTW.
- Reduce, under AMP3 programme, the BOD and ammonia load discharged from Rochdale WwTW.

| Ref  | Action   | Timescale   | Costs | Responsibility<br>(Lead/Partners)    | Progress   |
|--|--|-------------|-------|--------------------------------------|--|
| <b>ISSUE 2: Adverse impact of discharges from United Utilities Wastewater Treatment Works (WwTWs) on the Aquatic Environment</b> |  |             |       |                                      |  |
| 2.1  | Reduction in the organic load discharged from Oldham WwTW, Failsworth WwTW, Royton WwTW to achieve/maintain compliance with short term River Ecosystem RQOs  |             | £37k  | United Utilities                     | Action completed                                   |
| 2.2  | Evaluate requirements for (further) improvements at WwTWs for WwTWs for achievement of long term River Ecosystem RQOs and pursue expenditure in United Utilities's capital programme                             |             |       | Environment Agency                   | Action completed                                   |
| 2.3  | Evaluate the requirement for reduction in colour of the effluent from Rochdale WwTW  | 1998/2003   | £5k   | Environment Agency, United Utilities | *Additional year required to complete this action. |
| 2.4  | Identify potential 'sensitive areas' under the EC Urban Wastewater Treatment Directive and apply a monitoring strategy to put forward a case for designation in 2001   | 2001/2002   | £8k   | Environment Agency                   | New Action   |
| 2.5  | Monitor compliance with the new, more stringent consent conditions for BOD and Ammonia at Royton, Oldham and Failsworth WwTWs  | 2001/Future | £8k   | Environment Agency                   | New Action   |
| 2.6  | Assess compliance with River Ecosystem RQOs, monitor reduction in the organic load discharged from Royton, Oldham and Failsworth WwTWs and assess compliance in the River Irk, Wince Brook and the River Medlock | 2001/Future | £3k   | Environment Agency                   | New Action   |
| 2.7  | Reduce, under the AMP3 programme, the BOD and ammonia load discharged from Rochdale WwTW   | 2001/Future | CS*   | United Utilities, Environment Agency | New Action   |

\*CS: Commercially Sensitive.

|                                      | Ref  | Action   | Timescale   | Costs        | Responsibility (Lead/Partners) | Progress |
|--------------------------------------|--|--|-------------|--------------|--------------------------------|----------|
| <b>REGULATING<br/>MAJOR INDUSTRY</b> | <i>ISSUE 3: Aesthetic Impact of quarry drainage from Aggregate Industries UK Ltd, quarry on Tong End Brook and the River Spodden</i> |  |             |              |                                |          |
|                                      | 3.1  | Continue current monitoring programme and seek improvements to site drainage as required | 2000/Future | Cost unknown | Environment Agency             |          |
|                                      | 3.2  | Continue to investigate site drainage and pursue collection and treatment as necessary   | 2000/Future | Cost unknown | Aggregate Industries UK Ltd    |          |

|                                      | Ref   | Action   | Timescale   | Costs                                       | Responsibility (Lead/Partners)                | Progress |
|--------------------------------------|---|--|-------------|---|---|----------|
| <b>REGULATING<br/>MAJOR INDUSTRY</b> | <i>ISSUE 4: Adverse Impact of Run-off from Industrial Estates</i> |  |             |   |   |          |
|                                      | 4.1   | Identify pollution sources and pursue good site operation              | 1998/Future | Ongoing. As and when funds become available | Environment Agency, Site owners and operators |          |
|                                      | 4.2   | Pursue installation of oil interceptors and surface water interceptors | 1998/Future | Ongoing. As and when funds become available | Environment Agency, United Utilities          |          |



## Managing Waste

All wastes must be carefully managed, so we need to know what is produced and where it goes. We also need to ensure that it is handled and recovered or disposed of without harm to the environment or human health.

### Background

The Environment Agency's principal aim in discharging its functions is to contribute to achieving sustainable development<sup>1</sup>. Waste minimisation is viewed as a key element of achieving this aim. The Agency has outlined its commitment to waste minimisation in a number of documents; *"An Environmental Strategy for the Millennium and Beyond"*, *"The Agency's contribution to Sustainable Development – Waste Minimisation"* and in a recently adopted National Policy Statement.

The South Area produced its first waste minimisation strategy in 1999, the aim of which was to increase staff awareness of waste minimisation, and to co-ordinate waste minimisation activity within the area. Although the Agency's priorities have shifted towards ensuring that regulatory work is completed in the area, there is still the opportunity to be involved in promoting waste minimisation to many sectors of the community as part of everyday activities. A multi-functional approach is necessary, since waste minimisation techniques can be applied by a number of different teams within the area.

In an industrial context, waste minimisation is a process based approach, which looks at the overall performance of a company and assesses opportunities for improvement. Improved process efficiency usually results in increased output and a reduction in waste. This approach stresses that the true cost of waste is not simply waste disposal costs, but also the cost of raw materials, energy, labour and other associated costs. Reducing waste reduces environmental impact and also improves a company's profitability. Waste minimisation does not just focus on solid waste issues, but also covers water usage, discharges to sewer, emissions to air and energy usage.

### Update of Actions

The South Area took the lead in co-ordinating and providing information for a Regional Waste Minimisation and Recycling Guide, which was published in March 2000.

Metals Recycling Sites (MRS) – a two-year programme of targeted enforcement of unauthorised metals recycling sites began. This programme commenced with a desk study, through advertisements and yellow pages etc. that identified 366 potential sites.

Following an investigation of these locations and activities, this was initially reduced to 241 but a further 75 potential facilities were identified as a result of enquiries bringing the total to 316.

<sup>1</sup>Sustainable development is widely defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (known as the Brundtland definition).

### ***Key Achievements In 1998-2000***

A number of new environmental/waste minimisation schemes with Agency involvement were launched in 1999/2000:

- Manchester Waste Resource Scheme led by Groundwork Manchester. A waste exchange is in operation, together with waste audits, regular newsletters and seminars.
- Business Environment Associations (administered by Groundwork) have been launched, including East Manchester, Cheetham and Broughton.
- The Bury Business Environment Association continues to be successful, in waste minimisation and waste/materials recycling.
- Stakehill Industrial Estate surveys and audits were undertaken with the assistance of Environment Agency funding.

The Environment Agency has passed £50,000 to the Groundwork Trust to support the development of eight Green Business Parks in the Agency's South Area. In this LEAP area the Stakehill Industrial Estate has been identified as a target site for a park to receive a proportion of this funding.

### ***Annual Review Commitments***

#### ***We will:***

- As a priority, the Agency is also carrying out a campaign to identify and regularise unauthorised sites involved in metal recovery. These unregulated sites are mainly car breakers and have been targeted because of the real pollution risk they pose to the environment in this LEAP area. This will also support prevention of further contamination of land.
- Encourage and recommend waste minimisation.
- Participate in waste minimisation initiatives/seminars/clubs where requested.
- Send out promotional video and pamphlets to selected organisations.
- Hope to secure approval for implementation of electronic public register for waste data and remove need for a separate paper copy.

#### ***Forward Look:***

- Set up and encourage local initiatives to discourage flytipping, and offer support to existing initiatives.
- Identify and regularise unauthorised sites; priority being given to metal recycling sites.

The Green Business Parks programme will link businesses and public sector agencies in identifying and tackling particular issues, especially integrated waste management and waste minimisation, as well as pollution prevention and ecological improvement.



|                       | Ref  | Action  | Timescale      | Costs                              | Responsibility<br>(Lead/Partners)  | Progress |
|-----------------------|--|---|----------------|------------------------------------|--|----------|
| <b>MANAGING WASTE</b> | <b>ISSUE 5: Lack of Awareness and Implementation of the government's strategy for Sustainable Waste Management ('The Waste Hierarchy')</b> |   |                |                                    |  |          |
|                       | 5.1  | Continue to promote the economic and environmental benefits of moving up the waste hierarchy to industry and the public | 1998 - ongoing | As and when funds become available | Environment Agency, Local Authorities, Groundwork, Business links and clubs, Consultancies, Community and Voluntary Groups |          |
|                       | 5.2  | Extend information networks linking waste producers with secondary material users, recyclers and reprocessors           | 1998 - ongoing | As and when funds become available | Environment Agency   |          |

|                       | Ref   | Action   | Timescale        | Costs                                       | Responsibility<br>(Lead/Partners)  | Progress |
|-----------------------|---|--|------------------|---|--|----------|
| <b>MANAGING WASTE</b> | <b>ISSUE 6: The Adverse environmental impact of Unauthorised Waste Management activities (including flytipping)</b> |  |                  |   |  |          |
|                       | 6.1   | Set up and encourage local initiatives to discourage flytipping, and offer support to existing initiatives | 1998-2003        | Ongoing. As and when funds become available | Environment Agency, Local Authorities, Landowners, Public groups, Waste Disposal Authorities |          |
|                       | 6.2   | Identify and regularise unauthorised sites, priority being given to metal recycling sites                  | Action completed |   |  |          |



## Managing Water Resources

Increasing pressures on water resources, including uncertainties such as climate change, require us to take a sustainable approach to water management and use, balancing the needs of abstractors and the environment.

### **Background**

There is a need to control the use of water within the LEAP area, to ensure the maintenance of a balanced and sustainable resource. The Agency achieves this by licensing abstractions from the river and groundwater systems. The 'Policy and Practice for the Protection of Groundwater' provides guidance on the management of groundwater resources. In addition to this, from April 2001 'Catchment Abstraction Management Strategies' (CAMS) will be produced for all catchments in England and Wales. Once implemented, CAMS will become the focus for water resources management within LEAP areas and will enable the Agency to meet many of the objectives outlined in *Taking Water Responsibly*<sup>1</sup>. These objectives include a consistent and structured approach to water resources management, and an opportunity for greater public involvement. As experience is gained and techniques are improved, CAMS will evolve to provide an effective strategy for achieving and maintaining sustainability within a catchment.

To ensure that water resources are managed effectively, comprehensive information about the resource availability is required. Daily rainfall is measured using a network of voluntary observers; supporting this network is a number of automatic telemetred raingauges. River levels and flows are measured at various points throughout the LEAP area, to provide real-time data. In addition, specific projects are supported by the installation of temporary stations and spot measurements. Groundwater levels likewise are routinely monitored throughout the LEAP area.

### **Key Achievements In 1998/2000:**

- Preliminary consultation on the sustainable management of Water Resources carried out within the South Area. Results of the consultation will feed into the National Consultation process.

### **Forward Look:**

- Consultation document for Catchment Abstraction Management Strategies (CAMS) launched April 2000. Development of CAMS to start in 2001. CAMS process for Roch/Irk/Medlock to commence 2004.

<sup>1</sup>Taking Water Responsibly – government decisions following consultation on changes to the water abstraction licensing system in England and Wales. DETR March 1999.

|                                     | Ref   | Action   | Timescale  | Costs                             | Responsibility<br>(Lead/Partners) | Progress |
|-------------------------------------|---|--|------------|-----------------------------------|-----------------------------------|----------|
| <b>MANAGING WATER<br/>RESOURCES</b> | <i>ISSUE 7: Need to control the use of water to ensure the maintenance of a balanced and sustainable resource (NEW ISSUE)</i> |  |            |                                   |                                   |          |
|                                     | 7.1   | Collect information and prepare CAMS for Roch/Irk/Medlock catchments | 2004-2006* | 1.6 FTE per year across Functions | Environment Agency                |          |

\*Provisional timescale, awaiting approval.



## **Integrated River-Basin Management**

Integrated River Basin management is about more than just water quality, it concerns water flow, landscape, flood control works, recreation and wildlife. We consider all these factors to get the most of the river environment with the least disruption to it.

### ***Background***

Within a large part of the LEAP area, foul and surface water drainage is conveyed together to wastewater treatment works in combined sewers. To prevent flooding during storm conditions, relief combined sewer overflows (CSOs) are provided on the sewerage network. These are designed to only operate during heavy rainfall, i.e. when adequate dilution should be available in the receiving watercourse. Greater flows entering the sewerage system due to development within the area, has often resulted in inadequate capacity within the sewer. As a result, CSOs can operate more frequently and may even discharge prematurely, during mild storm events. CSO discharges can, therefore, have an adverse impact on the downstream water quality by increasing the organic load and/or diminishing the aesthetic quality of the watercourse.

Discharges from sewers can also occur due to blockages at CSOs and from emergency overflows (EOs) following the breakdown at sewage pumping stations. Such discharges should be infrequent, but can have a particularly significant adverse impact on water quality because they may occur during dry weather, when dilution in the watercourse is low.

Most developments built in the last 30 years are drained by two separate systems. One conveys uncontaminated surface water run-off and discharges into a local watercourse, whilst the other takes foul water to a wastewater treatment works.

Problems with this system can occur when foul drainage is incorrectly plumbed into the surface water drainage system. In homes this can happen when an extension is built or when a new water-using appliance is installed. It may even occur when the house is constructed. In some cases entire sewers may be wrongly connected to surface drains or where dual manholes exist, damage to the dividing wall or blockages in the foul sewer can result in foul drainage entering the surface water system. Additionally, contaminated liquids can accidentally be poured down the wrong drains. All of these problems result in the contamination of the surface water drainage system that can have a significant impact upon the receiving water into which it discharges.

The Environment Agency compiled a regional priority list of contaminated surface waters (CSWs) which identified where cross connections were having the greatest impact on receiving watercourses in the North West region. Any subsequent CSWs that are found will be scored and submitted for inclusion in the Regional list.

In some cases, the root cause of water quality problems is not fully understood and therefore investigative work is required. These problems may be a result of pollution from diffuse sources or from unidentified point sources. For example, discharges from a number of small abandoned mines in the area or historic unlicensed tips could contribute to poor water quality. Other suspected sources of pollution could be intermittent discharges from farms or industrial estates, but their relative contribution and impact on the aquatic environment needs to be evaluated.

Cowm Reservoir, Tong End Brook (also known as Cowm Brook) and the River Spodden have historically suffered from periodic deterioration. This is due to the discolouration arising from fine solids contained in contaminated site drainage from a quarry operated by Aggregate Industries UK Ltd. Improvements have been made to the site drainage, and a consent to discharge was issued as part of a strategy to control the quality of the quarry discharge. A programme of monitoring this discharge and the receiving water is being undertaken to assess the impact of the improvements, and to determine whether further improvements are needed.

An old tip in the Harpurhey area that suffers from diffuse ammonia contamination is having an effect on Moston Brook. Often redevelopment of land and property provides an opportunity to remediate contaminated sites and the Agency has an important role in influencing developers and consultants in order to ensure that this process proceeds satisfactorily.

A typical and very evident example of a source of contamination is the release of ochreous discharges from old mines and spoil heaps. Ochre is a reddish brown suspension caused by the oxidation of iron minerals and it can be discharged to ground or surface waters when abandoned mines become flooded. These suspensions have both aesthetic and water quality impacts due to their intense colorations and metal content.

The number of small old mines, localised tips and valleys infilled with waste from historic industrial processes in the area means that currently there are numerous unquantified and unknown potential sources of ochre pollution. Examples of its impact include the River Medlock upstream of Thornley Brook and also upstream of Fenny Field Bridge and a number of smaller watercourses including Ealees, Stanney, Lydgate and Thornley Brooks.

Problems at Hollingworth Lake associated with nutrient enrichment have recently lead to noticeable high levels of blue-green algae. Nutrient enrichment of the lake appears to be caused by upstream domestic and agricultural discharges plus possible re-activation of nutrients trapped in sediments. The resulting algal blooms cause a discolouration of the water and produce toxins which can prove to be poisonous if ingested. During 1996, this problem led to the complete banning of watersports on the lake, loss of amenity value and reduced aesthetic appeal.

The issue of promoting new means of surface water control affects both water quality and flood defence, particularly in the Beal catchment. By using the planning process, the Agency can promote more sustainable methods of surface water disposal which may benefit both water quality and flooding issues.

Endocrine disruption is a term that describes how natural hormones in wildlife are being interfered with. This interference results in changes, such as males becoming females and vice versa. Other problems include reproductive failure due to this interference. Endocrine disruption has also been linked to human health problems.

The Agency has initiated a research project that is looking at gaining baseline data on Endocrine disruption in the Freshwater Mersey Basin catchment (potentially spread across all South Area Agency LEAPs). Although the precise sampling locations have yet to be identified, it is thought that samples will be strategically taken rather than by a blanket survey.

Estuarine research across the country has indicated that the Mersey Estuary has Endocrine disruption in fish populations. The research project team will initially look at disruption in freshwater invertebrates to assess whether the freshwater catchment has similar problems to those found in the Mersey Estuary.

Poor access to stretches of watercourse can impede regular maintenance and emergency works activities. The Agency works with developers, landowners and other involved parties to gain access to and along watercourses for maintenance or public access. The construction of a suitable access to, and along, currently inaccessible watercourses is required to reduce maintenance costs and to improve the Agency's response to flooding. This can be achieved through the construction of access ramps and tracks, and the control of development and works.

It is Agency policy to oppose any culverting because of the adverse flood defence, ecological and other effects. The Agency will, therefore, only approve an application to culvert a watercourse if there is no reasonably practical alternative or if the detrimental effects would be so minor that they would not justify a more costly alternative. In all cases where it is appropriate to do so, adequate mitigation must be provided for any damage caused. Wherever practical, the Agency will seek to have culverted watercourses restored to open channel.

#### ***Update of Actions:***

- Issue 16: The Environment Agency has been gathering water quality data on the lake in order to devise a programme of management and control. This information will also contribute to a much larger national strategy on aquatic eutrophication that is being developed by the Agency.
- Issue 24: Adverse impact of flies from Wince Brook has been deleted from this annual review as the necessary actions have been undertaken and completed.

#### ***Key Achievements In 1998/2000:***

- The Agency has identified 38 unsatisfactory overflows in the River Irk catchment and 25 unsatisfactory overflows in the River Roch catchment. The Agency has successfully secured AMP3 funding to improve all of these between 2000 and 2005.
- Landfill tax credit monies awarded to the River Medlock Rehabilitation Scheme, a multi-functional scheme to rehabilitate a stretch of the River Medlock at Clayton Vale, Manchester. Works will include improved footpaths, ponds, wetland, reed beds, fish passes and some channel repairs.
- Pollution Prevention Campaign undertaken at Birch Industrial Estate in Rochdale.
- New flood warning codes implemented on 12 September, 2000. River level gauges at Rochdale have been upgraded to cope with more extreme events and provide more accurate information.
- Areas of redevelopment adjacent to the River Medlock in Manchester City Centre have offered an opportunity to provide new access along the route of the river, allowing continuous access beside the river in the city centre.
- Footpaths and access will be provided at Knott Mill and City Road East. An open section, previously confined within the Dunlop Works off Cambridge Street, will become visible for the first time since 1915 and access will be available along the line of the culverted section previously located within these works. Access and walkway will be gained during redevelopment of the Hanover Mills complex off London Road.
- The Beal Valley Partnership have been successful in obtaining £5,000 from Oldham MBC, and £600 from Shaw and Crompton Parish Council towards waymarking. Work to install the waymarkers in Oldham will begin soon. However, funds are still needed for the Rochdale MBC section.

- 52 unsatisfactory overflows within the LEAP area were improved or abandoned during the AMP2 programme. Inspection by the Agency early in 2000 indicated that two of these required further attention by United Utilities and this work was subsequently carried out. The programme of CSO improvement and abandonment can now be considered complete, and the Agency will continue to monitor performance at these sites.
- To date, seventeen new CSWs have been identified within the LEAP boundaries.
- The main priority in the Roch, Irk, Medlock LEAP area is Oozewood Road, Royton, a contamination source affecting the River Roy. This site was among the prioritised sites for which sufficient funding was available to allow determination of the nature and origins of the contamination. The investigative survey is now complete and work to remedy the contamination is underway.
- The Agency has provided funds of £2400 to the Beal Valley Partnership (BVP) to pursue a wrong connections strategy in the Linney Lane area of Shaw. A leaflet about the contamination problem in this area will be produced and distributed to householders. The BVP are also applying for funding and assistance in kind from other organisations.
- The Agency's understanding of the reasons for watercourses failing to comply with their River Ecosystem River Quality Objectives (RQOs) has been greatly improved. The Agency has developed a national database for recording RQO failures, the reasons behind them and actions necessary to bring about compliance.
- The Agency has investigated why Blackstone Edge Reservoir fails to comply with the EC Freshwater Fish Directive. This is due to naturally acidic run-off as a result of the peaty nature of the catchment. Other stretches, on Whiteholme Reservoir, Castle Brook and Ealees Brook intermittently fail to comply with the Directive for the same reason.
- Biological surveys are undertaken on a regular basis by Agency ecologists to identify lengths of river that show signs of pollution. The results are passed on to Environment Protection to enable officers to target areas where action is needed to prevent pollution from occurring.
- The Agency has established a monitoring and enforcement programme to ensure that private STWs and septic tanks are adequately maintained. Action by the Agency to secure improved treatment facilities at some of the large sewage treatment plants has meant that there are no longer significant localised pollution problems in the Whittle Brook catchment.
- Aggregate Industries UK Ltd and the Agency jointly reviewed progress on improvements to the site drainage in June 2000. New proposals to deal with water in the quarry were agreed.

## Final Plan Commitments

### Forward Look:

- The Agency is continuing to gather water quality data on Hollingworth Lake in order to devise a programme of management and control. This information will also contribute to a much larger national strategy on aquatic eutrophication that is being developed by the Agency.
- Further funding will need to be secured before other examples of CSWs in the LEAP area namely, Linney Lane, Shaw; Meadowcroft Lane, Bamford; and Turner Street, Waterhead are investigated and corrected.

| INTEGRATED RIVER-BASIN MANAGEMENT | Ref  | Action  | Timescale   | Costs                      | Responsibility (Lead/Partners)   | Progress         |
|-----------------------------------|--|---|-------------|----------------------------|--|------------------|
|                                   | <b>ISSUE 8: Adverse impact of discharges from sewer overflows on the aquatic environment</b> |   |             |                            |  |                  |
|                                   | 8.1  | Reduction in organic and debris load from unsatisfactory sewer overflows affecting the River Medlock, Lumb Brook, the River Irk, Moston Brook, Wince Brook and Parr Brook | 2000-2003   | Ongoing. As and when funds | United Utilities, Local Authorities, Environment Agency become available |                  |
|                                   | 8.2  | Evaluate requirement and pursue expenditure to reduce organic and debris load from remaining unsatisfactory sewer overflows throughout the LEAP area                      |             |                            | Environment Agency, United Utilities                                     | Action completed |
|                                   | 8.3  | Improve, under the AMP3 programme, the performance of all identified unsatisfactory overflows   | 2000/Future | CS*                        | United Utilities, Environment Agency                                     |                  |

\*CS: Commercially Sensitive.



|  | Ref  | Action  | Timescale | Costs        | Responsibility (Lead/Partners)                              | Progress |
|--|--|---|-----------|--------------|---|----------|
| <b>INTEGRATED RIVER-BASIN MANAGEMENT</b> | <b>ISSUE 9: Adverse impact of contaminated surface water discharges on the aquatic environment</b> |   |           |              |   |          |
|  | 9.1  | Identification of wrong connection problems                             | 2001-2003 | Staff time   | Environment Agency, Local Authorities                       |          |
|  | 9.2  | Correction of wrong connections to reduce pollution                     | 2000-2003 | Cost unknown | United Utilities, Local Authorities, Householders, Industry |          |
|  | 9.3  | Promote awareness of the problem and new means of surface water control | 2000-2003 | Staff time   | Environment Agency, United Utilities, Local Authorities     |          |

|  | Ref  | Action  | Timescale          | Costs      | Responsibility (Lead/Partners)                           | Progress   |
|--|--|---|--------------------|------------|--|--|
| <b>INTEGRATED RIVER-BASIN MANAGEMENT</b> | <b>ISSUE 10: Lack of public sewerage in the Whittle Brook catchment leading to localised pollution</b> |   |                    |            |  |  |
|  | 10.1   | Ensure adequate maintenance and performance of private STWs and septic tanks    | Action completed   | Staff time | Environment Agency, Private Owners, Local Authorities    | Action completed   |
|  | 10.2   | Provision of public sewerage under Section 101a of the Water Industry Act, 1991 | Action unnecessary |            | *United Utilities, Local Authorities, Environment Agency | Action unnecessary<br>This issue has been resolved and will not feature in future Annual Reviews |

\*United Utilities should be contacted for details of the criteria needed before an application for a public sewer can be made.

|  | Ref   | Action   | Timescale | Costs      | Responsibility<br>(Lead/Partners) | Progress  |
|--|---|--|-----------|------------|-----------------------------------|---|
| <b>INTEGRATED RIVER-BASIN<br/>MANAGEMENT</b> | <b>ISSUE 11: Adverse impact of ochreous discharges on the aquatic environment</b> |  |           |            |                                   |   |
|  | 11.1  | Investigate causes and impacts of discharges and pursue funding for remediation schemes as appropriate | 2000-2003 | Staff time | Environment Agency                | A scoping study of the impact of ochre on the River Medlock was undertaken in Summer 2000. The results of chemical and ecological sampling, river gauging and a cost benefit analysis will be assessed by the Agency and any necessary improvement scheme placed on a North West region priority list. The approximate cost of this scoping study is £1,200 |

|  | Ref   | Action  | Timescale | Costs      | Responsibility<br>(Lead/Partners)   | Progress |
|--|---|---|-----------|------------|---|----------|
| <b>INTEGRATED RIVER-BASIN<br/>MANAGEMENT</b> | <b>ISSUE 12: The presence of blue-green algae in Hollingworth Lake causing water quality concerns and loss of amenity</b> |   |           |            |   |          |
|  | 12.1  | Continue to monitor water quality, when appropriate, for the presence of blue-green algae | 2000-2003 | Staff time | United Utilities,<br>Rochdale<br>Metropolitan<br>Borough Council,<br>Environment<br>Agency<br>Hollingworth Lake<br>Sailing Club |          |
|  | 12.2  | Install cages, holding Barley straw, to alleviate the problem (a)                         | 2000-2001 | Staff time | Rochdale<br>Metropolitan<br>Borough Council,<br>Rangers Service   |          |

(a) One cage has already been installed in the lake and more will follow. Barley straw inhibits the growth of algae.

|                                   | Ref   | Action  | Timescale | Costs                                       | Responsibility (Lead/Partners)   | Progress |
|-----------------------------------|---|---|-----------|---|--|----------|
| INTEGRATED RIVER-BASIN MANAGEMENT | <b>ISSUE 13: Lack of awareness and restricted access to watercourses for recreational activities (Combined issues 17, 18 and 20, renamed)</b> |   |           |   |  |          |
|                                   | 13.1  | Rehabilitation of the River Medlock at Clayton Vale   | 2000-2003 | £250k                                       | Environment Agency   |          |
|                                   | 13.2  | Providing, encouraging and enforcing access along watercourses i.e. Manchester City Centre                            | 2000-2003 | Ongoing. As and when funds become available | Environment Agency, Local Authorities, Developers, Riparian Owners, Beal Valley Partnership, Medlock/Tame River Valley Initiative                              |          |
|                                   | 13.3  | Meeting the potential needs for signage and interpretation boards on and near to river crossings and public footpaths | 2000-2003 | £5.6k                                       | Beal Valley Partnership (L), Environment Agency, Local Authorities, (Oldham and Shaw & Crompton Parish Council), Developers, Riparian Owners, Medlock/Tame RVI |          |
|                                   | 13.4  | Identify and gather information on all culverts suitable to be opened up when the opportunity arises                  | 2000-2003 | Cost unknown                                | Environment Agency, Local Authorities, Developers, Riparian Owners   |          |

|                                   | Ref   | Action   | Timescale        | Costs   | Responsibility (Lead/Partners)   | Progress |
|-----------------------------------|---|--|------------------|---|--|----------|
| INTEGRATED RIVER-BASIN MANAGEMENT | <b>ISSUE 14: Incomplete understanding of the causes of adverse impacts on the aquatic environment</b> |  |                  |   |  |          |
|                                   | 14.1  | Improve understanding of reasons for not complying with long term RQOs   | Action completed | Staff time  | Environment Agency   |          |
|                                   | 14.2  | Investigate cause of failure to comply with the Freshwater Fish Directive at Blackstone Edge Reservoir         | Action completed | Staff time  | Environment Agency   |          |
|                                   | 14.3  | Investigate watercourses where invertebrates are impaired which is not fully accounted for by chemical quality | 2000-2003        | Staff time  | Environment Agency   |          |
|                                   | 14.4  | Investigate where habitat improvements could improve biological quality and pursue where appropriate           | 2000-2003        | Costs unknown. As and when funds become available | Environment Agency, Local authorities, Landowners, Developers, Fishing Interests and Wildlife Groups |          |

|                                      | Ref  | Action  | Timescale | Costs  | Responsibility<br>(Lead/Partners)   | Progress |
|--------------------------------------|--|---|-----------|--|---|----------|
| INTEGRATED RIVER BASIN<br>MANAGEMENT | <i>ISSUE 15: Dereliction adjacent to and within the watercourse is leading to increased flood risk, loss of built heritage and decrease in environmental quality</i> |   |           |  |   |          |
|                                      | 15.1   | Identify areas at risk.<br>(Section 105)*   | 1998-2003 | Staff time                                     | Environment Agency,<br>Local Authorities,<br>Developers                     |          |
|                                      | 15.2   | Investigate the known problems and report on the technical, economic and sustainability of any potential solution | 1998-2000 | Ongoing.<br>As and when funds become available | Environment Agency,<br>Riparian owners,<br>Local Authorities,<br>Developers |          |

\*The Agency has a duty under Section 105 of the Water Resources Act 1991 to produce maps showing the location and extent of areas at risk of flooding.

|                                      | Ref   | Action  | Timescale | Costs      | Responsibility<br>(Lead/Partners)   | Progress |
|--------------------------------------|---|---|-----------|------------|---|----------|
| INTEGRATED RIVER-BASIN<br>MANAGEMENT | <i>ISSUE 16: The need to balance the potential impacts of the restoration of the Rochdale Canal</i> |   |           |            |   |          |
|                                      | 16.1  | Ensure that all relevant bodies are made aware of restoration proposals | 1999-2003 | Staff time | Rochdale Canal Trust,<br>Rochdale Canal Company   |          |
|                                      | 16.2  | Formulate plans to balance impacts as and when schemes are proposed     | 1998-2002 | Staff time | Rochdale Canal Trust,<br>English Nature,<br>Rochdale Canal Company,<br>GMEU,<br>Environment Agency,<br>Todmorden A.S,<br>Castleton A.S,<br>Stockport & District,<br>GMAU,<br>Local Environment Groups |          |



## Conserving the Land

Our aim is to protect the land from water (flooding) and protect the water from land (contamination). Flooding endangers property, crops and lives. Contaminated land gives rise to water pollution and risks to health. Less obvious damage is caused by soil erosion.

### Background

A number of existing urbanised regions within the LEAP area have been highlighted as being vulnerable to potential flooding from rivers and watercourses. At the same time, pressure for the development of floodplains within urban areas is increasing. The Agency opposes development within floodplains and aims to secure and, where necessary, restore their effectiveness for flood defence and environmental purposes.

To allow the Agency to meet its objective of 'reducing the risk of flooding', the Agency has permissive powers to carry out maintenance works and build flood defences on designated main rivers.

The Agency recognises that irrespective of attempts to reduce the risk of flooding through either our policies<sup>1</sup> or actions, flooding can still occur.

The Agency monitors rainfall, river levels and sea conditions, 24 hours a day and uses this information to forecast flooding from most major rivers and the sea where appropriate; many small rivers and streams rise too fast for warnings to be issued.

If flooding is likely, flood warnings are issued to the media and in some places direct to people at home or work. Arrangements for warning residents within a formal Flood Warning Zone have been agreed in consultation with local authorities and emergency services.

In this LEAP area there is a formal zone on the River Roch at Rochdale and an informal zone at Littleborough.

Bringing contaminated land back into beneficial use helps to conserve land as a resource and reduces pressure on Greenfield sites, thus conserving agricultural land and natural habitats. Redevelopment of such land provides an opportunity to remediate the contamination, and the Agency works closely with Local Authorities, landowners, developers, and other organisations to ensure that the environment is protected and improved during the redevelopment process.

Part IIA of the Environmental Protection Act 1990 provides a new regulatory regime for the identification and remediation of contaminated land. The regulations create for the first time a statutory definition of 'contaminated land' as

*"any land which appears to the local authority in whose areas it is situated to be in such a condition by reason of substances in, on or under the land, that; significant harm is being caused or there is a significant possibility of such harm being caused, or pollution of controlled waters is being, or is likely to be caused."*

<sup>1</sup> Policy Document: Policy and Practice for the Protection of Floodplains (April 1997)

Local Authorities and the Environment Agency will have joint responsibilities under the new regulations. Local Authorities must publish a written strategy of how they intend to inspect their areas for the purpose of identifying contaminated land within 15 months of the regulations coming into effect. The Local Authority will then arrange for certain suspect areas of land to be investigated in detail to help assess whether they fit the definition. Once an authority has determined that a piece of land is 'contaminated' they must decide what remediation is required and who is liable to carry out that work. The Environment Agency has a requirement to provide the local authority with both general and site specific information and guidance in order to assist them in their duties. The Agency will have the responsibility for ensuring investigation and remediation of certain types of 'contaminated land' known as 'special' sites. Examples of special sites include those causing serious water pollution, former acid tar lagoons, MoD land, explosives manufacture sites and oil refineries. The Agency also has a duty to publish (from time to time) a National Report on the State of Contaminated Land. The Part IIA regulations came into effect April 2000.

Remediation of contaminated land in general costs substantial sums of money. Although polluters or landowners may be found liable and made to pay, overall progress is likely to be influenced by government policy and the availability of funding. Some contaminated sites are in public ownership as a result of abandonment. Such sites are frequently termed 'orphan' sites. Funding to investigate and remediate these types of sites is made available to the Agency through the DETR's Supplementary Credit Approval Scheme (SCA) where they are causing, or have the potential to impact controlled waters, and to the Local Authorities where there are impacts or potential impacts to human health.

#### ***Key Achievements In 1998/2000:***

#### **Section 105 of the Water Resources Act 1991**

Investigations to identify areas at flood risk within the LEAP as part of the Section 105 projects have been completed. These have included a series of computer based hydraulic models which simulate flood flows through key risk areas and increase the accuracy of the estimated floodplain. The Section 105 models cover the River Beal through Milnrow to Shaw, and the River Roch at Bury and provide detailed hydraulic and hydrological analysis. Further calculations have also been carried out at around 45 specific problem spots throughout the catchment.

#### **River Roch Flood Alleviation Scheme**

Work has been completed to design stage for a scheme which will bring increased protection to two main sites at Littleborough and Rochdale (with several smaller sites within the catchment also benefiting). The work is being completed as part of a larger combined Capital works joint scheme, which is due to commence next year and take two years to complete.

#### **Flood Warning**

#### **Easter Flood Action Plan**

Following the severe flooding that affected large areas of central and eastern England and parts of Wales over the Easter weekend 1998, the Agency commissioned an independent investigation. The findings of this investigation, chaired by Peter Bye, formed the basis of the Easter 1998 Flood Report by the Independent Review Team to the Board of the Environment Agency (the Bye Report). This assessed the lessons that could be learnt from the Easter Floods. In the response, the Agency produced an Action Plan, which is aimed at refocusing and accelerating the Agency's flood warning improvement programme for England and Wales.

## **Implementing New Flood Warning Codes**

The new system was introduced on 12 September 2000 and has taken 18 months to develop. The new warning codes, icons and definitions have been developed in close consultation with Agency practitioners, local authorities, the media, emergency services and the general public. The new system is based on four stages – Flood Watch, Flood Warning, Severe Flood Warning and All Clear – and will be more wide reaching and more customer focused, designed to be easily understood.

As part of the implementation, the addresses of all homes in known flood risk areas have been identified and information regarding the new flood warning codes sent to householders.

River level gauges at Rochdale have been upgraded to cope with more extreme events and provide more accurate information.

A prioritisation exercise has been undertaken identifying potential future floodwarning zones.

### **Contaminated Land:**

- Information and guidance provided to Local Authorities under Part IIA of the Environment Protection Act 1990.

### **Annual Review Commitments:**

**We will:** Work with local authorities to minimise the environmental impact of planned development, through active consultation on development control issues.

The Agency continues to advise Local Authorities over the impact of development on flood plains, and on the protection of groundwater amongst other things.

**We will:** Work closely with Local Authorities to fully implement the new legislation and identify and deal with contaminated land within the catchment.

**We will:** Identify and prioritise contaminated sites within the catchment which are having a known impact on controlled waters but where the polluter cannot be found.

**We will:** Work with landowners and developers to promote a prioritised programme of contaminated land reclamation within the catchment.

The Agency will advise Local Authorities and developers through the existing Development Control process.

**We will:** Provide mapped flood plain data to local authorities to assist in identifying problem areas for the purpose of planning future development.

The Agency has provided maps of flood risk areas on CD-ROM to all Local Authorities.

### **Forward Look:**

- Identify areas at risk (Section 105).\*
- Increase flood protection through River Roch Flood Alleviation Scheme.

\*The Agency has a duty under Section 105 of the Water Resources Act 1991 to produce maps showing the location and extent of areas at risk of flooding.

- Identify and prioritise sites for possible SCA funding.
- Ensure remediation of 'special' sites identified under Part IIA.
- Contribute towards national report on state of contaminated land under Part IIA.

| Ref                        | Action  | Timescale   | Costs     | Responsibility (Lead/Partners) | Progress                                    |
|----------------------------|---|---|-----------|--------------------------------|---|
| <b>CONSERVING THE LAND</b> | <b>ISSUE 17: Impact of contaminated land on the environment</b> |   |           |                                |   |
|                            | 17.1  | Identify and prioritise sites for possible SCA funding                                  | Ongoing   | Staff time                     | Environment Agency, Local Authorities       |
|                            | 17.2  | Provide information and guidance to Local Authorities under Part IIA                    | Ongoing   | Staff time                     | Environment Agency, Local Authorities       |
|                            | 17.3  | Conduct site investigations at potential 'special' sites on behalf of Local Authorities | Ongoing   | Costs unknown                  | Environment Agency, Local Authorities       |
|                            | 17.4  | Ensure remediation of 'special' sites identified under Part IIA                         | Ongoing   | Costs unknown                  | Environment Agency, Local Authorities       |
|                            | 17.5  | Contribute to national report on state of contaminated land under Part IIA              | 2002      | Staff time                     | Environment Agency, Local Authorities       |
|                            | 17.6  | Undertake detailed supporting investigations: (a) Harpuhey reservoirs                   | 1998-2000 | Costs unknown                  | Environment Agency, Manchester City Council |

a) An environmental consultancy firm, Dames and Moore, has been contacted by Manchester City Council to produce a report on a remediation strategy for the contaminated land site known as Harpuhey Reservoirs. The report will cost £15,000 and will be funded by the European Regional Development Fund, implemented by Manchester City Council. The remediation of the site will form part of a larger river corridor and open space project based around the River Irk at Harpuhey.

| Ref                        | Action  | Timescale   | Costs     | Responsibility (Lead/Partners) | Progress                              |
|----------------------------|---|---|-----------|--------------------------------|---------------------------------------|
| <b>CONSERVING THE LAND</b> | <b>ISSUE 18: Properties at risk of flooding and the need for more effective flood warning</b> |   |           |                                |                                       |
|                            | 18.1  | Identify areas at risk (Section 105)*                                 | 1998-2000 | Staff Time                     | Environment Agency, Local Authorities |
|                            | 18.2  | Increase flood protection through River Roch Flood Alleviation Scheme | 2001-2005 | **£3486k                       | Environment Agency                    |

\*The Agency has a duty under Section 105 of the Water Resources Act 1991 to produce maps showing the location and extent of areas at risk of flooding.

\*\*Capital Costs – excludes staff time and consultants.





## Managing Freshwater Fisheries

Good water quality and adequate flows are a prerequisite for healthy fish populations. We are also committed to a programme of habitat improvements, often in collaboration with other interested parties such as farmers and nature conservation groups.

### Background

Many river reaches in the area have suffered from poor water quality in the past to the extent that fish have been excluded.

Due to the work of the Agency along with other organisations including United Utilities and angling groups, water quality has improved to such an extent that we can now consider stocking rivers that have been devoid of fish in living memory.

### Update of Actions:

- As part of the routine fisheries survey program, a fisheries survey was carried out on the River Irk in the summer of 2000. The results of this survey, along with biological and chemical water quality results, indicated that although the water quality in the Irk catchment is improving, greater improvements are expected due to upgrades at the sewage treatment works in Oldham and Royton.
- A recent survey of the River Medlock showed that very good stocks of coarse fish were present in certain reaches following the successful stockings of Chub and Dace from the Environment Agency's Leyland hatchery. A project carried out recently indicated that the lack of suitable habitat and the presence of a large weir, rather than poor water quality probably limited the distribution of fish.

### Forward Look:

- Carry out a desk study to investigate the most appropriate sites to initiate 'pump priming' stocking exercises in the area.
- Carry out monitoring to survey the success of any fish introduction.

|                                  | Ref  | Action   | Timescale | Costs  | Responsibility (Lead/Partners)                       | Progress |
|----------------------------------|------|--|-----------|--------|--|----------|
| MANAGING<br>FRESHWATER FISHERIES |      | <i>ISSUE 19: The need for restoration of freshwater fisheries as water quality improves</i>  |           |        |  |          |
|                                  | 19.1 | To carry out a study to investigate the most appropriate sites to initiate 'pump priming' stocking exercises in the RIM area – via routine fisheries surveys | 2000-2001 | £11.0k | Environment Agency, United Utilities, Angling Groups |          |
|                                  | 19.2 | Survey to monitor the success of any fish introductions  | 2001-2002 | £1.5k  | Environment Agency, United Utilities, Angling Groups |          |



## Enhancing Biodiversity

Conserving and enhancing the variety of animal and plant life and the habitats in which they live is vital in improving the state of the environment.

### **Background**

When the UK signed the Convention on Biodiversity in 1992 at the Earth Summit, it committed itself, amongst other things, to protect ecosystems and natural habitats and maintain viable populations of species. One of the means of doing this was to develop a national strategy that was endorsed by the Government in 1996. So far action plans have been drawn up for a short list of 116 of the most threatened and declining species and 14 key habitats. In 1998 a second list of 56 action plans was issued. To be implemented successfully these national targets will be translated into effective action at a local level through Local Biodiversity Action Plans (LBAPs). In 1999 ten more national priority habitat BAP's, 75 new BAP's for plants and fungi and 103 new BAP's for invertebrates have been produced. This brings the total number of national species BAP's to 350. The total number of national habitat BAP's stands at 24.

A biodiversity audit with local action plans for the conservation of wildlife of the Cheshire region has been compiled, with partners, by the Cheshire Wildlife Trust. The programme, based on the best available scientific knowledge, will set out clearly the priority action required to conserve the most vulnerable plants and animals.

There is a need to continue to protect, improve and monitor existing habitats. This is already being done through the network of sites of nature conservation importance, such as Sites of Special Scientific Interest (SSSI), Sites of Biological Interest (SBI), Special Protection Areas (SPA) and Environmentally Sensitive Areas (ESA).

By creating new habitats and removing threats to existing habitats, species will be encouraged to achieve their target distribution and status.

- **Greater Manchester BAP**

Key species involved include floating water plantain, water voles, bats, grass-wrack pondweed (identified in the Ashton Canal, East Manchester).

- **Remediation of ochreous discharges to rivers**

Surveys of river invertebrate fauna were carried out on the River Medlock, Bardsley and on Lydgate Brook, Gale (River Roch) to help assess bids to reduce the impact of ochreous discharges. These discharges damage habitats by smothering river beds and their associated plantlife.

## **Update of Actions**

### **Water Voles**

The Agency is the contact point for this flagship species. A Water Vole Handbook (1998) has been produced by the partnership of English Nature, the Environment Agency and the Wildlife Conservation Research Unit. Water Voles are protected by law and were included in Schedule 5, Section 9(4) a and b of the Wildlife and Countryside Act 1981 (as amended) in 1998.

#### **Key Achievements In 1998/2000:**

- **Water Vole**

Handbook produced.

- **Rochdale Canal Restoration – cSAC/Luronium (Habitats Directive)**

Some 20km of Rochdale Canal within the Roch/Irk/Medlock area, from Littleworth to Failsworth were designated in 2000 as an SSSI, on account of its diverse aquatic flora. It is also a major habitat for the nationally sparse species Floating Water Plantain (*Luronium natans*), and the canal has therefore been proposed as a candidate Special Area of Conservation (SAC). *Luronium natans* occurs in two forms; in shallow or less disturbed water bearing small white flowers and floating oval leaves (hence its common name), and in deep water as submerged rosettes of narrow grass-like leaves.

Plans to make the Rochdale Canal navigable present a challenge to maintain the plant's favourable status. This will be achieved by working closely with British Waterways and English Nature. Plants favour clear-water locations subject to a *little* disturbance from dredging or boat traffic that prevents it being out-competed by more vigorous species, but not too much disturbance which would destroy it.

- **Medlock/Tame RVI, Water Vole survey**

The Environment Agency contributed £700 to a survey aimed at identifying sites where water voles were found in the rivers Medlock and Tame catchments in 2000, at sites selected on the main rivers, ordinary watercourses and a random selection of still water bodies within 1 km of the rivers.

The report on all sites is still awaited, but a preliminary report (September 2000) identified just one site on each of the rivers Medlock and Tame, where water vole colonies could be confirmed.

#### **Final Plan Commitments:**

**We will:** In partnership with local authorities, support the development and implementation of local Biodiversity Action Plans, with particular regard to those species and habitats for which the Agency is a contact point or lead partner.

We are involved with the Regional Audit reviewing biodiversity within the North West. This, together with involvement in local biodiversity action plans, will help to identify any gaps in knowledge.

### Forward Look:

- Work in partnership with other organisations to protect key species and habitats identified from LBAPs.
- Identify and prioritise stretches suitable for enhancement and rehabilitation.
- Further conservation of Great Crested Newts, Water Voles, and Pipistrelle Bats to protect and enhance populations.

| Ref   | Action  | Timescale | Costs  | Responsibility   | Progress<br>(Lead/Partners) |
|---|---|-----------|--|--|-----------------------------|
| <b>ENHANCING BIODIVERSITY</b>   |   |           |  |  |                             |
| <i>ISSUE 20: The need for continued habitat improvement and protection of existing wildlife habitats to conserve and enhance biodiversity</i> |   |           |  |  |                             |
| 20.1  | Continue to contribute to the development of Biodiversity initiatives, for example, LBAPs and Species Action Plans                | 1998-2003 | Staff time                                       | Local Authorities, GMEU, EN, RSPB, Specialist local groups, Environment Agency   |                             |
| 20.2  | Work in partnership with other organisations to protect key species and habitats identified from LBAP                             | 1998-2003 | Staff time                                       | Environment Agency, Local Authorities, GMEU, Pond Life, Local wildlife, Organisations and specialist groups                |                             |
| 20.3  | Monitor and record status and distribution of the Water Vole within the area in order to protect and enhance populations          | 1998-2003 | Cost unknown. As and when funds become available | Environment Agency, EN, Local Authorities, Local wildlife organisations and specialist groups                              |                             |
| 20.4  | Monitor and record the status and distribution of Great Crested Newts within the area in order to protect and enhance populations | 1998-2003 | Cost unknown. As and when funds become available | GMEU, Pond Life, EN, Environment Agency, Local Authorities, Local wildlife organisations and specialist groups             |                             |
| 20.5  | Collate and update information on other key species within the area, for example, Pipistrelle Bats, Floating Water Plantain       | 1998-2003 | Cost unknown. As and when funds become available | GMEU, EN, RSPB, Wildlife Trusts, Environment Agency, Local Authorities, Local Wildlife organisations and specialist groups |                             |

(continued)

| ENHANCING BIODIVERSITY | Ref   | Action  | Timescale   | Costs   | Responsibility<br>(Lead/Partners)  | Progress |
|------------------------|---|---|-------------|---|--|----------|
|                        | <i>ISSUE 20: The need for continued habitat improvement and protection of existing wildlife habitats to conserve and enhance biodiversity</i> |   |             |   |  |          |
|                        | 20.6  | Work in partnership with other organisations to promote the restoration of vulnerable landscapes and habitats identify opportunities for habitat creation | 1998-2003   | Cost unknown.<br>As and when funds become available | Environment Agency, Local Authorities, FWAG, MAFF, Wildlife Trusts, CPRE, Landowners, Developers |          |
|                        | 20.7  | Identify and prioritise stretches suitable for enhancement and rehabilitation   | 1999/Future | Unknown.<br>As and when funds become available      | Environment Agency, Local Authorities, Groundwork Trusts, Landowners                             |          |
|                        | 20.8  | Implement enhancement and rehabilitation schemes as funds become available or in conjunction with other schemes   | 1999/Future | Unknown.<br>As and when funds become available      | Environment Agency, Local Authorities, Groundwork Trusts, Landowners, Developers                 |          |
|                        | 20.9  | Research approaches and techniques for enhancement and rehabilitation   | 1999/Future | Unknown.<br>As and when funds become available      | Environment Agency   |          |

| ENHANCING BIODIVERSITY | Ref   | Action  | Timescale                | Costs      | Responsibility<br>(Lead/Partners)   | Progress |
|------------------------|---|---|--------------------------|------------|---|----------|
|                        | <i>ISSUE 21: Invasive non native pest species</i> |   |                          |            |   |          |
|                        | 21.1  | Investigate the extent of Japanese Knotweed, Himalayan Balsam and Giant Hogweed in the area   | Action completed         | Staff time | Environment Agency, Local Authorities, Ranger Services, Landowners, General Public                              |          |
|                        | 21.2  | Carry out control measures where flood defence, conservation or recreation interests justify it                                       | Revised action 2001-2003 | Staff time | Environment Agency, Local Authorities, Ranger Services, Landowners  |          |
|                        | 21.3  | Encourage control of invasive plants where appropriate, as part of developments and Agency capital schemes to prevent further spread  | Revised action 2001-2005 | Staff time | Environment Agency  |          |
|                        | 21.4  | Collate information on other non native pest species in the area, for example, mink, signal crayfish, <i>Azolla</i> , <i>Crassula</i> | 2000-2003                | Staff time | Environment Agency  |          |
|                        | 21.5  | Offer advice on control methods in response to public awareness of the problems and to reduce introductions into the wild             | 2000-2003                | Staff time | MAFF, Environment Agency, EN, IFE, Aquatic Weed, Research Centre, The Garden Centre Association, Garden centres |          |

A booklet 'Guidance for the control of invasive plants near watercourses' is available from the Environment Agency.



## Internal Environmental Policy

### ***Background***

The Agency's approach to minimising the impacts of its own activities in support of the Government's *green* initiative is our Environment First Culture. It was adopted in 1996. Operating within this culture enables us to implement effective environmental management and deliver our own environmental policy with significant progress made to date.

This doctrine aims to gain commitment and raise the awareness of staff. National targets are set and reviewed annually based upon the environmental impacts of our own activities and the Environmental Policy. In addition to our national targets, site specific targets for energy, water, waste and transport have been under development.

We are implementing an Environmental Management System (EMS), in accordance with the European Standard ISO14001. Much of the preparation has been completed and by March 2002 we aim to have an Agency-wide EMS in place.

### ***Key Achievements In 1998/2000:***

#### ***Reduction of energy usage at Appleton House, Birchwood:***

- Trial of PIR (passive infrared system) has been undertaken in the building
- Water management system was installed in the Gents toilets
- Overnight security lights have been altered from timers to motion
- Low energy lighting has been fitted to our Reception area (500w to 28w)
- Timers have been fitted to vending machines and canteen equipment

A PC based Building Management System to monitor and control energy and water consumption at Appleton House has recently been investigated. However, the project is awaiting funding.

#### ***Reduced mileage and improved transport efficiency***

A campaign highlighting the benefits of National Car Free Day is held at Appleton House each year. Employees are encouraged to leave their vehicles at home and participate by using public transport, cycling, or walking to work. Its aim is to encourage travelling to work by any means that will minimise contributing to the thinning of the ozone layer or increasing global warming due to the greenhouse effect caused by increased levels of carbon dioxide, CFCs and other pollutants. This annual event is well supported by our staff.

A 'Give a lift and do your bit' map was available asking people to add their names if they would car share. Public transport timetables etc were very successfully promoted.

A hotline number for people to let the Agency know how many pollution free miles they had made on the day attracted many callers.

### **Miles Saved**

| <b>Walk</b> | <b>Cycle</b> | <b>Car Share</b> | <b>Public Transport</b> | <b>Home</b> | <b>Total</b> |
|-------------|--------------|------------------|-------------------------|-------------|--------------|
| 43          | 68           | 226              | 191                     | 695         | 1223         |

A 'powerbyke' demonstration gave staff the opportunity to trial the bikes around Appleton House.

### **Miscellaneous**

A wormery has been installed at Appleton House for food wastage. All food is recycled using this method and compost will be collected at the end of the cycle.

### **Health and Safety**

Health & Safety Action Plans are currently in operation for all South Area sites. These will be incorporated into staff objectives to ensure safe working practices.

### **Forward Look:**

- Publication of Annual Reviews for the Weaver/Dane LEAP and Roch/Irk/Medlock LEAP (this document).
- A 'Partnership Initiative' to develop closer ties with Local Authorities, the River Valley Initiative Group and several local community groups is in place. Closer liaison with these organisations and the Agency's Partnerships Officer will highlight key environmental concerns and identify Agency, Local Authority, Corporate and Community Groups' activities, enabling the Agency to propose options for collaborative work.

These are just some of the initiatives that are underway in the Agency. If you would like more information on our environmental policy and performance, please contact:

South Area Environmental Management Co-ordinator  
Environment Agency  
Appleton House  
430 Birchwood Boulevard  
Birchwood  
Warrington  
WA3 7WD

Tel: (01925) 840000

Fax: (01925) 852260



## NEW DUTIES OF THE AGENCY

Over the next two to three years, the Environment Agency will have a number of new regulatory duties. These result from European Directives, Government Policies and Agency developments. There may be additional resources for some of these tasks but rigorous priorities will have to be set to accommodate the new statutory requirements.

Comprehensive reviews of abstraction licensing and fisheries legislation are also in progress.

### 1. Integrated Pollution Prevention and Control

The law enacting the EC Directive came into force in October 1999 and extended the concept of Integrated Pollution Control to a wide range of industrial sectors, embracing elements of waste management licensing and includes aspects such as noise, energy and waste minimisation. It applies immediately to new or substantially changed installations but will be phased in over a seven-year period.

### 2. Contaminated Land

The Environment Act 1995 (section 57) introduced the framework for a new contaminated land regime. This legislation implemented on 1st April 2000 will provide new duties and powers to Local Authorities and the Agency and enable the legacy of potential problem sites to be tackled.

Under this new legislation the two joint regulators have the following responsibilities:

| Local Authorities   | Agency   |
|---|--|
| <b>Duties:</b><br>Inspect their areas to identify contaminated land (CL).<br>Consult the Agency where CL affects the pollution of controlled waters.<br>Ensure remediation of CL.<br>Transfer regulatory responsibility of 'special sites' to the Agency.<br>Maintain 'remediation register'. | <b>Duties:</b><br>Ensure remediation of 'special sites'.*<br>Maintain a register of 'special site' remediation.<br>Prepare a national report on the state of CL.<br><b>Powers:</b><br>To provide advice to local authorities on;<br>1. Identifying pollution of controlled waters.<br>2. The remediation of contaminated land. |

\*Special sites are ones which effect the environmental quality standards of surface waters, major aquifers or public water supplies, or are sites with IPC processes or tar lagoons, or are owned by the Ministry of Defence.

**3. Groundwater Directive**

New Groundwater Regulations came into force January 1999 to implement fully this Directive. The disposal of List I or II substances (i.e. the potentially most polluting ones) require Agency authorisation. Disposal of sheep dip to land will require a Water Resources Act 1991 consent which will place restrictions on the quantity to be disposed, the frequency of disposal and the location. The Agency also has a duty to issue notices, prohibiting or controlling certain activities in or on ground involving List I and II substances.

**4. Control of Major Accident Hazards (COMAH)**

This replaces the former Directive on Control of Industrial Major Accident Hazards (CIMAH) and requires operators of industrial processes involving dangerous substances to take all measures necessary to prevent and mitigate the effects of major accidents on man and the environment. The COMAH regulations place a statutory duty on the Agency, along with the Health and Safety Executive (HSE) as part of a Competent Authority, to enforce the requirements of the regulations in England & Wales.

**5. Minewaters**

There are a number of issues relating to European legislation, in particular the Dangerous Substances Directive and Groundwater Directive that will impact on the way the UK deals with minewaters. These issues have implications for the Agency specifically in terms of its monitoring regime and consenting policy. It is anticipated that the bulk of the improvement work will fall to the Coal Authority, subject to adequate funding being made available. The Agency will be responsible for the regulatory role and will need to balance this additional requirement with the existing programme for minewater remediation. This will ensure that the priority for action remains focused on the significant environmental improvements, whilst maintaining progress towards meeting the objectives of the relevant Directives.

**5. Habitats Directive**

A European Directive came into force in 1994. Its provisions require a widespread review of environmental consents and licences to ensure that they take account of the impacts of abstractions, discharges or atmospheric emissions on Special Protection Areas (SPA) or Special Areas of Conservation (SAC). These reviews must be carried out between 1998 and 2004 on a prioritised basis.

## OTHER AGENCY INITIATIVES

### Catchment Abstraction Management Strategies (CAMS)

In April 2000, the Agency launched a consultation document setting out a new framework for the sustainable management of water resources. This was in response to a Government consultation paper in 1998 (*The Review of the Water Abstraction Licensing System in England and Wales*), and subsequent decision paper *Taking Water Responsibly* (1999).

Catchment Abstraction Management Strategies provide the opportunity to manage our water resources effectively. We must take a holistic approach in considering the needs of abstractors, alongside those of fisheries, recreation and navigation as well as the need to protect water quality and generally conserve the aquatic environment. We intend developing CAMS at a local level in April 2001.

At a local level, CAMS will provide the opportunity for groups and individuals to contribute to the development of the strategy to be adopted for the catchment. CAMS will provide information on:

- availability of water in a catchment,
- licensing practice for dealing with new applications,
- changes required to the abstraction regime in order to achieve sustainable long term use of water resources.

CAMS will provide a transparent basis for planning by abstractors, the Agency, and all other interested parties. They will also be the mechanism for reviewing time-limited licences, deciding whether they should be renewed, and on what terms. They may well include the identification of opportunities for and possible limitations to licence trading following further consultation on this topic, that trading should be introduced.

For more information about CAMS in South Area, contact Amanda Turner, Water Resources Officer (CAMS) at 01925 840000 Ext. 3470.

In addition, there will be information available on the Agency's Internet website.

Our address is: [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

## **PARTNERSHIPS**

Partnerships in the form of pooled resources and expertise can bring about greater environmental benefit than could be achieved by one organisation working alone. Many organisations and individuals have responsibilities for the environment and, perhaps more importantly, *can* play a vital role in improving it.

The level of interest in local communities, conservation/recreation groups, local authorities and industry in tackling environmental issues has greatly increased and, therefore, the opportunities for greater achievement are plentiful. The hard work usually involves bringing these like-minded people together in the right place, at the right time. The projects detailed below are examples of what can be achieved when individuals from organisations work together in partnership to maximise the benefits for the environment.

Two examples of partnership achievements are: The Medlock River Rehabilitation Project and the Adoption of Wilson Brook, Hyde Park, Tameside, by St. Paul's Primary School.

### **The Medlock River Rehabilitation Project**

Clayton Vale, once a quiet river valley, was almost totally destroyed by pollution and neglect, largely due to the industrial age that brought employment, but at a cost to the local landscape. The River Medlock is approximately 1.4km long in this reach and lies within an area of informal public open space. The majority of the channel bed varies in width between four and ten metres. Manchester City Council owns the surrounding land.

If the project is successful in achieving funding, the five weirs within the section could each receive a fish passage for successful migration both up and downstream and improvement of the present and subsequent wetland habitats will allow two other ponds on site to be further developed for angling.

In partnership with the Mersey Basin Trust, Manchester City Council, and the Groundwork Trust, the Environment Agency hopes to contribute funding through its multi-functional programme. Additional funding is being sought from the Landfill Tax Credit Scheme. Manchester City Council Leisure Services Department has indicated that they will undertake future maintenance of the works on their land.

The scheme objectives are to improve the river corridor for conservation and recreational purposes by increasing habitats for wildlife, encouraging increased recreational use, improving water quality and encouraging the river's self-maintaining potential.

### **River Adoption and Care, Hyde Park, Tameside**

Funding to create a fitness trail has been successfully obtained by Groundwork Tameside and will be provided in part by GlaxoWellcome, a Barnardos 'Right Fit' Grant and the Environment Agency. The trail will be built around a tributary of the River Tame, Wilson Brook, flowing through Hyde Park, Manchester.

The Medlock and Tame River Valley Initiative (RVI) has carried out regular clean-ups over the past eighteen months and recently arranged for St. Paul's Primary School to adopt this local stretch of river. To date the main partners of the project are the Medlock and Tame RVI, Groundwork Tameside, the Mersey Basin Campaign, St. Paul's Primary School and the Environment Agency. Five scout and guide groups as well as a further three schools will help design the fitness trail. Tameside Metropolitan Borough Council, who owns the land around the river, has supported all the work that the Medlock and Tame RVI have achieved in Hyde Park in the past.

The planned improvements will make a big and immediate impact and should lead to increased use of the site, important conservation strategies and a greater appreciation of the river and the land around it.

## UPDATE OF ASSET MANAGEMENT PLANS (AMP)

### Sewage Treatment Works' Improvement Schemes approved for Investment in 2000-2005 (AMP3).

The investment by United Utilities under the third Asset Management Plan (period 2000-2005) will be part statutory and part discretionary. Statutory investment will be to ensure compliance with EC Directives (Urban Waste Water Treatment, Fisheries, and Habitats) Discretionary investment will be undertaken to achieve other environmental improvements such as compliance with River Quality Objectives.

| Discharge name | Receiving water name | Completion Date |
|----------------|----------------------|-----------------|
| Rochdale STW   | River Roch           | 31 March 03     |

### Combined Sewer Overflow (CSO) Improvement Schemes for Investment during 2000-2005 (AMP3)

A number of zones have been identified to require schemes to address water quality problems. United Utilities has undertaken surveys across the Region to ensure that all deficiencies associated with intermittent discharges (water quality and aesthetics) are identified in the current planning period.

Schemes designed to reduce the impact of CSO's on water quality generally entail a high cost and require detailed sewer and river modelling. They may involve re-sewerage and the provision of new overflow structures and storage. Schemes to reduce aesthetic impact are generally lower cost involving installation of screens at the overflow and additional storage or pumping facilities.

| Drainage Area | Discharge name and Location   | Watercourse  | Completion Date |
|---------------|-------------------------------|--------------|-----------------|
| Irk           | Smedley                       | River Irk    | 31 March 04     |
| Irk           | Moss Brook Court              | River Irk    | 31 March 04     |
| Irk           | Moss Brook Court              | River Irk    | 31 March 04     |
| Irk           | Bromley Street/Dantzic Street | River Irk    | 31 March 04     |
| Irk           | Queens Road/Henhurst Street   | Moston Brook | 31 March 04     |
| Irk           | Parlane Street/Dantzic Street | River Irk    | 31 March 04     |
| Irk           | Chew Row/Drinkwater Street    | River Irk    | 31 March 04     |
| Irk           | Hendham Vale/Westmere Road    | River Irk    | 31 March 04     |
| Irk           | Waterloo/Crescent Road        | River Irk    | 31 March 04     |
| Irk           | Cleveland/Delauneys Road      | River Irk    | 31 March 04     |
| Irk           | Bank Road O/S No. 173         | River Irk    | 31 March 04     |
| Irk           | Queens Road/Hardham Vale      | River Irk    | 31 March 04     |
| Irk           | Victoria Ave/Glenbrook        | River Irk    | 31 March 04     |
| Irk           | Potters Lane                  | Moston Brook | 31 March 04     |

| <b>Drainage Area</b> | <b>Discharge name and Location</b>  | <b>Watercourse</b>    | <b>Completion Date</b> |
|----------------------|-------------------------------------|-----------------------|------------------------|
| Irk                  | Blackley New Road                   | River Irk             | 31 March 04            |
| Irk                  | Mill Brow/Blackley Road             | River Irk             | 31 March 04            |
| Irk                  | Rochdale Road/Alfred Street         | River Irk             | 31 March 04            |
| Irk                  | Cleveland Road/Delauney's           | River Irk             | 31 March 04            |
| Irk                  | Moston Lane/Rochdale Road           | River Irk             | 31 March 04            |
| Irk                  | Dexter/Heaton Park Road             | River Irk             | 31 March 04            |
| Irk                  | Middleton Old Road                  | River Irk             | 31 March 04            |
| Irk                  | Brynorne Road                       | Crumpsall Brook       | 31 March 04            |
| Irk                  | Chuddleigh Road, Crumpsall          | River Irk             | 31 March 04            |
| Irk                  | Rochdale Road/Collyhurst            | River Irk             | 31 March 04            |
| Irk                  | Miller/Corporation Street           | River Irk             | 31 March 04            |
| Irk                  | Middleton Road                      | River Irk             | 31 March 04            |
| Irk                  | South Blackley North Road           | River Irk             | 31 March 04            |
| Irk                  | Dantzic Street                      | River Irk             | 31 March 04            |
| Irk                  | Queens Road/Henhurst Road           | River Irk             | 31 March 04            |
| Irk                  | Kenyon Lane                         |                       | 31 March 04            |
| Oldham               | Mainway, Alkrington                 | Boardman Bk – Culvert | 31 March 04            |
| Oldham               | John Lee Fold                       | Whit Bk               | 31 March 04            |
| Oldham               | Off Manchester New Road, Alkring    | Boardman Bk-River Irk | 31 March 04            |
| Oldham               | Adj Irk Boothroyden Road, Rhode     | River Irk             | 31 March 04            |
| Oldham               | Off Whiteley Drive (Neilson Street) | Wince Brook           | 31 March 04            |
| Oldham               | Long Street, The Market Place       | River Irk             | 31 March 04            |
| Oldham               | D/S of Kirkway                      | Wince Brook           | 31 March 04            |
| Oldham               | Spring Vale Middleton               | River Irk             | 31 March 04            |
| Oldham               | Wood Street, Middleton              | River Irk via Culvert | 31 March 04            |

The information above is that approved by DETR in June 2000.

## ROUTINE WORK OF THE ENVIRONMENT AGENCY

On a day-to-day basis, the Agency carries out a huge environmental monitoring and regulatory operation, most of which is to achieve statutory requirements. The aim of regulation is to balance the needs of people and the environment. The Agency works to:

- conserve, redistribute and improve river, lake, reservoir and underwater supplies
- prevent and control pollution of air, land and water
- reduce the risk of harm from contaminated land and bring it back into use
- make sure waste is dealt with safely and legally
- make sure radioactive materials are kept, used and disposed of safely
- make sure flood risks are reduced and new ones are not created or exacerbated.

Regulating the environment takes place through licensing. The Agency manages licences for abstraction of water from rivers and boreholes, releases to air and water, the carrying and disposal of waste and to carry out work in, over, under or near a watercourse. Within South Area we manage 1,427 water abstraction licenses, 3,769 consents to discharge to water, 621 waste management licences and 543 permits for radioactive materials and waste.

We monitor the environment to ensure that pollution is controlled and resources are adequately protected. We regularly monitor the quantity and quality of rivers, estuaries and the sea and check emissions from the processes we regulate. Results are reported on a public register, which can be inspected at the Agency's main offices. We run a 24-hour service for receiving reports of and responding to, flooding and pollution incidents and emergencies in the air, water or on land. We also work with others to reduce the risk of harm from contamination and to bring land back into good use.

We work to minimise waste and prevent pollution through advice and education, including national campaigns and through working with other environmental regulators. When necessary, we are prepared to enforce environmental legislation in a tough way. Those who show little regard for the law and who cause blatant and persistent damage to the environment can expect to be prosecuted.

The Agency also has the role of reducing risk to people and the environment from flooding by providing effective defences. Protecting life is our highest priority and to meet this aim we provide a flood forecasting and warning service and discourage development in flood-risk areas. In South Area we also manage approximately 100 km of flood defences and aim to protect and improve the natural environment by promoting flood defences that work with nature.

We are responsible for maintaining, improving and developing fisheries. We regulate fisheries by issuing licences for rod angling and net fishing. We carry out improvements to fisheries by improving the habitat and fish stocks and providing advice to fishery owners. The Agency seeks to ensure that wildlife; landscape and archaeological heritage are protected both in any work we carry out and also in work carried out by others.

We have two primary statutory duties in respect of features of conservation interest. To further, wherever possible, conservation when carrying out water management functions and to have regard to conservation when carrying out pollution prevention and control functions. We also have a freestanding duty generally to promote the conservation of natural beauty and amenity and the wildlife dependent upon the aquatic environment.



Our principal aim for recreation is to protect, improve and promote the water environment for recreational use. We do this by protecting existing use and creating opportunities in the course of our work and by maximising the use of Agency owned sites for recreation.

## OUR VISION – THEMES FOR THE FUTURE

Our vision for the environment and a sustainable future is:

*a healthy, rich and diverse environment in England and Wales, for present and future generations.*

Set out below are our nine themes for the future and how they will contribute to this long-term goal.

The fundamental goals\* we want to help achieve:

- **a better quality of life.** People will have peace of mind from knowing that they live in a healthier environment, richer in wildlife and natural diversity – an environment that they will care for and can use, appreciate and enjoy.
- **an enhanced environment for wildlife.** Wildlife will thrive in urban and rural areas. Habitats will improve in their extent and quality to sustainable levels for the benefit of all species. Everyone will understand the importance of safeguarding biodiversity.

The environmental outcomes for which we are striving:

- **cleaner air for everyone.** We will have cleaner and healthier air. The emission of chemical pollutants into the atmosphere will decline greatly and will be below the level at which they can do significant harm.
- **improved and protected inland and coastal waters.** Our rivers, lakes and coastal waters will be far cleaner. They will sustain diverse and healthy ecosystems, water sports and recreation such as boating and fishing, and those uses needed by a thriving and healthy community.
- **restored, protected land with healthier soils.** Our land and soils in the countryside and towns will be exposed far less to pollutants. They will support a wide range of uses, including production of healthy, nutritious food and other crops, without damaging wildlife or human health. Contaminated and damaged land will be restored and protected.

The changes we will seek:

- **a 'greener' business world.** Industry and businesses will value the services that come from a rich and diverse natural environment. In the process, they will reap the benefits of sustainable business practices, improve competitiveness and value to shareholders and secure trust in the wider community.
- **wiser, sustainable use of natural resources.** Business, public agencies, other organisations and individuals will minimise the waste they produce. They will reuse and recycle materials far more intensively, and will make more efficient use of energy and materials.

The risks and problems we will help manage, prevent and overcome:

- **limiting and adapting to climate change.** Drastic cuts will have been made in the emission of 'greenhouse gases' such as carbon dioxide and society as a whole will take account of, and be prepared for, the probable changes to our climate.

- **reducing flood risk.** Flood warnings and sustainable defences will continue to prevent deaths from flooding. Property damage and distress will be minimised. The role of wetlands in reducing flood risks will be recognised and all the environmental benefits from natural floods will be maximised.

\* Our assessment of the activities which would help us to move towards these goals in the medium term will be described in a series of documents to be published during 2001.

## **APPENDICES**

### **APPENDIX 1– GLOSSARY**

#### **ABSTRACTION LICENCE**

A licence to abstract water issued by the Agency. The maximum annual, daily, and hourly abstraction rates are normally set within the terms of the licence.

#### **CHANNEL**

A cutting in land along which a watercourse flows.

#### **CONFLUENCE**

Point where two, or more, rivers meet.

#### **CONTROLLED WASTE**

Household, commercial or industrial waste from a house, school, university, hospital, residential or nursing home, shop, office, factory or any other trade or business. It may be solid or liquid, but not necessarily hazardous or toxic.

#### **CULVERT**

Covered channel or large pipe to carry water below ground level e.g. under a road, railway or building.

#### **CYPRINIDS**

The Carp family of fish comprising some 200 freshwater species.

#### **DEPOSITION**

Where a river flows more slowly it may deposit gravel, sand and silt in its channel – often on the inside edge of bends or meanders.

#### **ENDOCRINE**

Physiology of or denoting glands which secrete hormones or other products directly into the blood.

#### **EUTROPHICATION**

Enrichment of water by nutrients causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned.

#### **FAUNA**

Animal life.

#### **FLUVIAL**

Adjective of rivers.

## **FRESHWATER FISH**

For the purpose of the Salmon and Freshwater Fisheries Act 1975, fish other than salmon, brown trout, sea trout, rainbow trout and char.

## **GEOMORPHOLOGICAL FEATURES**

Physical features of a river, which include meandering (winding) channel, gravel beds and shoals, oxbows, earth cliffs and river terraces.

## **INDICATIVE STANDARDS**

Ministry of Agriculture, Fisheries and Food defined standards of flood protection according to current land use.

## **INVERTEBRATE**

Animal without a backbone for example insects.

## **LANDFILL**

The deposit of waste into or onto land, which can then be restored to some other use. The predominant method for the disposal of controlled waste in the UK.

## **LANDFILL GAS**

Gas arising from the natural biological degradation of organic materials in landfill. It consists mainly of methane and carbon dioxide and can cause problems such as damage to crops and vegetation, and hazards such as risk of asphyxiation or explosion in confined spaces. Landfill gas may, however, be exploited as an energy source.

## **LANDFILL TAX**

Introduced in October 1996, a tax paid by landfill operators to ensure that landfill costs reflect environmental impact, thereby encouraging waste reduction, reuse and recovery.

## **LEACHATE**

Liquid containing material in solution, draining from the ground.

## **LOAD**

A measure of the material carried by a river either in suspension or as dissolved material.

## **MAIN RIVER**

Some, but not all, watercourses are designated as Main River. Main River status of a watercourse must first be approved by MAFF. The Environment Agency has the power to carry out works to improve drainage or protect land and property against flooding on watercourses designated as Main River.

## **MARGINAL**

At the water's edge.

**OCHRE**

Iron based orange discolouration.

**PASTURE**

Semi-improved and improved grazed grassland.

**POOL**

A deep slowing flowing section of a river or stream.

**PRODUCER RESPONSIBILITY**

A business-led approach, which may be underpinned by legislation, to achieve the reuse, recovery and recycling of waste.

**RETURN PERIOD**

The frequency within which, on average, an event of a certain severity may be expected to return (expressed in years).

**RIFFLE**

A shallow, but fast flowing part of a river or stream.

**RIPARIAN**

Of, or on, the banks of a river.

**RIPARIAN OWNER**

Owner of land abutting a river or lake. Normally riparian owners own the bed of river to the mid point of the channel.

**RIVER CORRIDOR**

Stretch of river including its banks and the land close by.

**SALMONIDS**

Fish classified as belonging to the Salmon family, such as Salmon, Trout and Char.

**SHOAL**

A sand and/or gravel deposit at the edge of or within a river channel.

**SPECIAL WASTE**

A strictly defined group of controlled wastes, which are considered to be particularly dangerous or difficult, usually by virtue of hazard or toxicity, and therefore subject to additional controls.

**TOPOGRAPHY**

Physical features of a geographical area.

**TRANSFER STATION (Waste disposal)**

A licensed depot where controlled waste is stored and sorted for disposal or recycling.

**TREATMENT**

The physical, chemical or biological processing of certain wastes to reduce volume or pollution potential before recovery or disposal.

**WASTE MINIMISATION**

Reducing the quantity and/or hazard of waste produced.

**WATER TABLE**

The surface of a body of groundwater within the underground strata. The water table will fluctuate as a result of natural or artificial causes.

## **APPENDIX 2**

### **ABBREVIATIONS**

|       |   |  |
|-------|---|--|
| AOD   | – | Above ordnance datum                                     |
| ADAS  | – | Agricultural Development Advisory Service                |
| AMP   | – | Asset Management Plan                                    |
| BOD   | – | Biochemical Oxygen Demand                                |
| CMP   | – | Catchment Management Plan                                |
| CSO   | – | Combined Sewer Overflow                                  |
| CSW   | – | Contaminated Surface Water                               |
| DETR  | – | Department of the Environment, Transport and the Regions |
| EC    | – | European Commission                                      |
| EO    | – | Emergency Overflow                                       |
| ESA   | – | Environmentally Sensitive Area                           |
| EQS   | – | Environmental Quality Standard                           |
| FWAG  | – | Farming and Wildlife Advisory Group                      |
| FTE   | – | Full time equivalent                                     |
| GQA   | – | General Quality Assessment                               |
| IPC   | – | Integrated Pollution Control                             |
| LBAP  | – | Local Biodiversity Action Plan                           |
| LPA   | – | Local Planning Authority                                 |
| MAFF  | – | Ministry of Agriculture Fisheries and Food               |
| NFU   | – | National Farmers Union                                   |
| OFWAT | – | Office of Water Services                                 |
| QSL   | – | Quality Survey Limit                                     |
| RE    | – | River Ecosystem  |
| RHS   | – | River Habitat Survey                                     |
| RQO   | – | River Quality Objective                                  |



|      |   |  |
|------|---|--|
| SBI  | – | Site of Biological Importance                    |
| SPA  | – | Special Protection Area                          |
| SSSI | – | Site of Special Scientific Interest              |
| SWQO | – | Statutory Water Quality Objectives               |
| UDP  | – | Unitary Development Plan                         |
| UU   | – | United Utilities (formerly North West Water Ltd) |
| WML  | – | Waste Management Licence                         |
| WwTW | – | Wastewater Treatment Works                       |

## ACKNOWLEDGMENTS

The Environment Agency has compiled this report with contributions from key organisations in the area. The Agency Project Team members responsible for the development of this report are:

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| Martin Walsh      | Water Quality Planner                    |
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## ROCH/IRK/MEDLOCK LOCAL ENVIRONMENT AGENCY PLAN – ANNUAL REVIEW

If you would like to know more about this LEAP or other LEAP documents, please contact:

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For further information about the Environment Agency, our web site is  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

There is also a ***Roch/Irk/Medlock Summary*** document  
that contains key achievements for the area.  
It is available on request.

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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**

**0845 933 3111**

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

**ENVIRONMENT AGENCY  
EMERGENCY HOTLINE**

**0800 80 70 60**



**ENVIRONMENT  
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