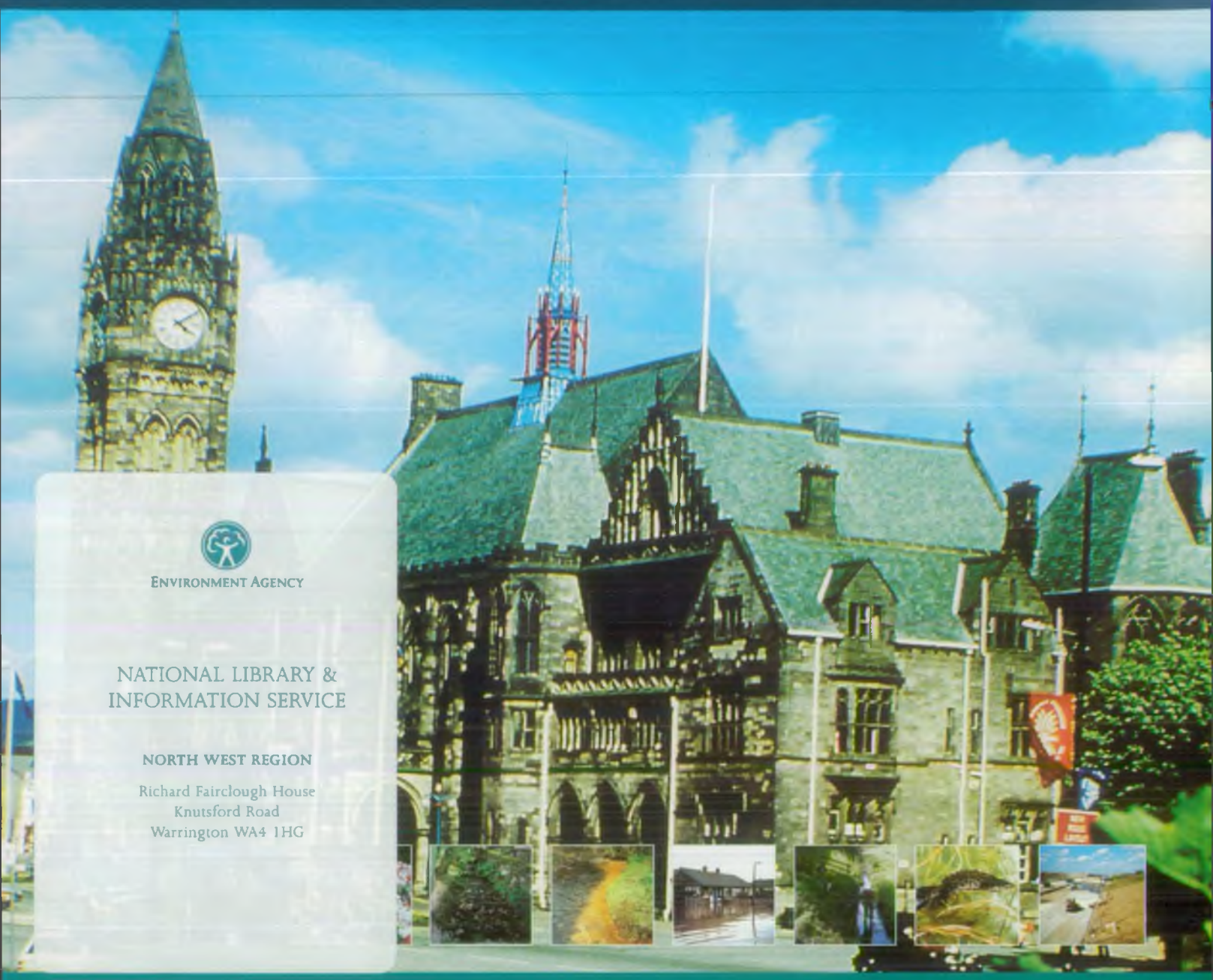


Roch/Irk/Medlock Local Environment Agency Plan
Annual Review Summary

ENVIRONMENT AGENCY

May 2001

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

Climate change is expected to have a major impact on the natural world and on human society. Temperature increases and changes in weather patterns have led to predictions that the pattern of the world's weather may change. There are likely to be more intense heatwaves, floods, droughts and storms, with significant impacts on water resources, agriculture and human health.

The Agency will explore, in partnership with others, the most effective mixture of economic measures, negotiated agreements and direct regulation to ensure that significant cuts are made in 'greenhouse gas' emissions from industry and other sectors.

We will also be at the forefront of measures to inform the public about the issues and to help them take steps to reduce risks and prevent damage and loss of life from inevitable changes to the climate – such as increased flooding.

Improving Air Quality

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.

Discussions have taken place between the Agency, Bury MBC, Oldham MBC, Manchester CC and Rochdale MBC. The Agency has provided information regarding Integrated Pollution Control (IPC) Part A processes and Local Authorities have produced Air Quality Reviews and proposed air quality management areas.

The Agency will work towards shared strategies with our partners at a local level to improve air quality from all sources. Provision of information in an understandable, accessible format on air quality issues, including emissions inventories, will be a priority for the Agency.

An Environment Agency objective 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.

- Following installation of new plant, an annual reduction of approximately 50 tonnes of Methyl-chloride emissions at Akzo Nobel Chemicals Ltd, Littleborough, has been achieved.

Regulating major industries

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.

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

Discharges from Oldham, Royton and Failsworth have, in the past, had a significant impact on the water quality of their receiving watercourses. Discharges from Rochdale WwTW continue to have a significant impact.

As part of its Pollution Prevention and Waste Minimisation programme, the Agency works with industry through education and guidance, to achieve a balance towards industrial activity that does not harm the environment.

- A £37million improvement programme was undertaken at Royton, Oldham and Failsworth WwTWs. Completed in March 2000, the Agency is closely monitoring the effect of reducing organic loading in the WwTW effluents and the associated improvements in the water quality of the River Irk, Wince Brook and the River Medlock respectively.
- The improvements at Rochdale WwTW by United Utilities are scheduled for completion before the end of March 2005. This will ensure that the River Roch downstream achieves its River Ecosystem RQO (River Quality Objective).
- A Pollution Prevention Campaign was carried out 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.

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.

The South Area produced its first waste minimisation strategy in 1999. Its aim is to increase staff awareness of waste minimisation and to co-ordinate waste minimisation activity within the area.

In an industrial context, waste minimisation is a process based approach, that 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 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.

- 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 has taken place.
- A number of new environmental/ waste minimisation schemes with Agency involvement were launched in 1999/2000:

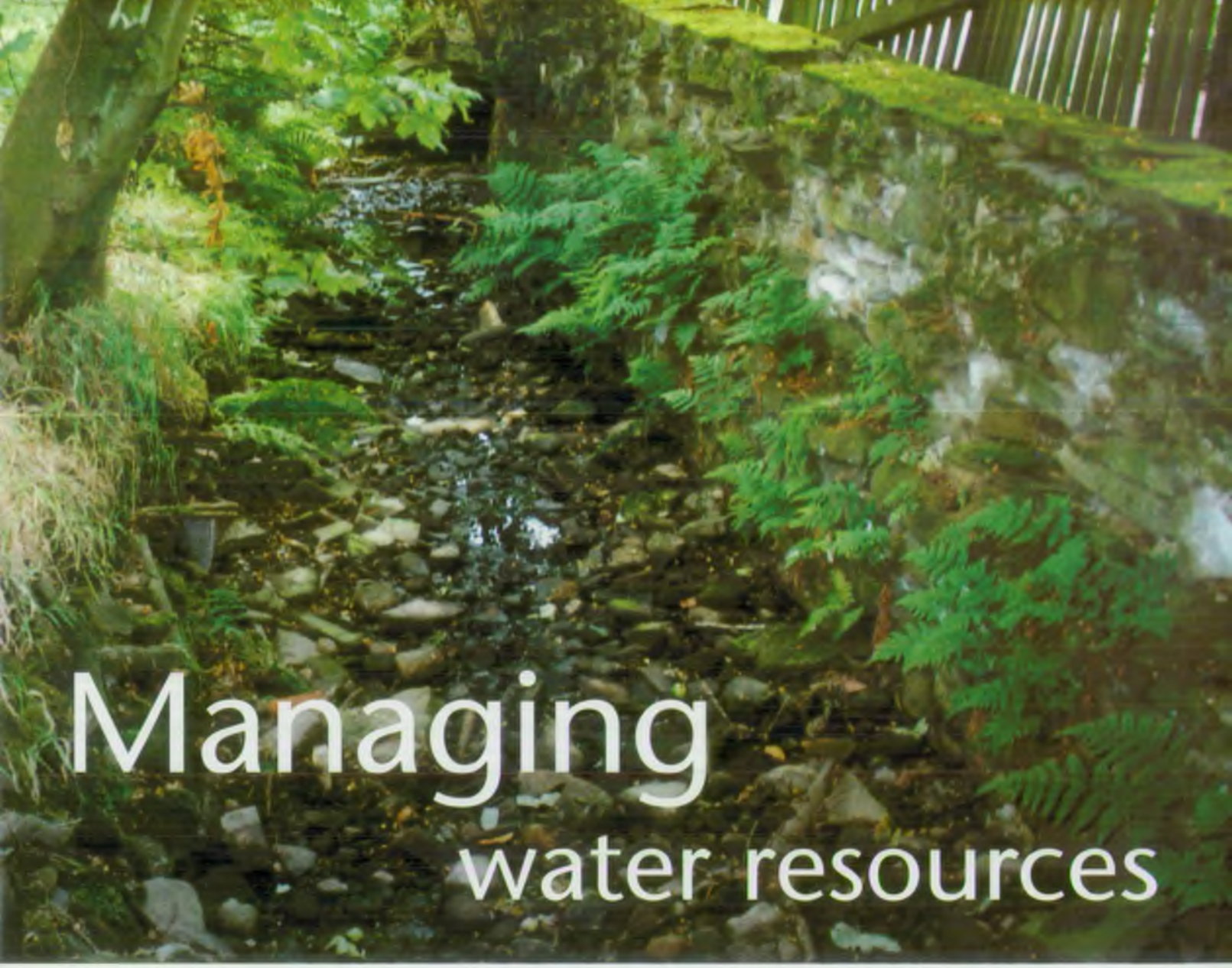
– Manchester Waste Resource Scheme led by Groundwork Manchester.

– 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.
- 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.



Managing water resources

Townhouse Brook – the impact of an historic unsustainable abstraction. CAMS will provide the strategy to ensure the wiser and sustainable management of our 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.

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. Commencing 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*[1]. These objectives include a consistent and structured approach to water resources management, and an opportunity for greater public involvement.

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 are 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 are routinely monitored throughout the LEAP area.

- Preliminary consultation on the sustainable management of Water Resources was carried out within the South Area. Results of the consultation will feed into the National Consultation process.
- A consultation document for Catchment Abstraction Management Strategies (CAMS) was launched in April 2000. Development of CAMS will start in 2001. CAMS process for Roch/Irk/Medlock to commence 2004.

[1] *Taking Water Responsibly* – government decisions following consultation on changes to the water abstraction licensing system in England and Wales. DETR March 1999.

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.

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 operate only during heavy rainfall, ie, when adequate dilution should be available in the receiving watercourse.

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. Contamination of the surface water drainage system can have a significant impact upon the receiving water into which it discharges.

The Environment Agency has 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.

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 coloration and metal content.

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.

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.

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.

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.

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.

- The River Medlock Rehabilitation Scheme is a multi-functional scheme to rehabilitate a stretch of the River Medlock at Clayton Vale, Manchester. It has been allocated £100,000 of Agency funding. Via Entrust and the Mersey Basin Campaign the Agency has been awarded Landfill Tax Credit monies of £150,000 from Onyx. Works including improved footpaths, ponds, wetland, reed beds, fish passes and some channel repairs are being considered, with additional backing being sought from a variety of sources. A feasibility study has been completed and work is expected to be scheduled for 2001/2002.

- 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.

- The Agency has provided funds of £2,400 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.

- 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.

- Survey carried out to assess the impact of the ochreous discharge at Fenny Fields Bridge on the River Medlock. This is one of a number of sites in the North West which have been forwarded to the national remediation programme. The sites are then ranked in priority order and a list is given to the Coal Authority for action.

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.

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.

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[1] 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.

[1] *Policy document:* Policy and Practice for the protection of Floodplains (April 1997).

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.

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 designed to be easily understood. It is based on four stages – *Flood Watch*, *Flood Warning*, *Severe Flood Warning* and *All Clear* – and will be wide reaching and more customer focused.

- 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 code sent to householders.
- River level gauges at Rochdale have been upgraded to cope with extreme events and provide more accurate information.
- A prioritisation exercise has been undertaken identifying potential future flood warning zones.

Contaminated Land

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 polluted land provides an opportunity to remedy 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.

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.

Information and guidance provided to Local Authorities under Part IIA of the Environment Protection Act 1990. Local Authorities and the Environment Agency will have joint responsibilities under the new regulations. 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.

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.

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.

- As part of the routine fisheries survey programme, 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 introduction of Chub and Dace from the Environment Agency's Leyland hatchery.



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.

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.

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.

- A Water Vole Handbook (1998) was 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.

- Medlock/Tame RVI, Water Vole survey.

The Environment Agency contributed £700 to a survey aiming to identify 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 1km 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.

- Stretches of river suitable for enhancement and rehabilitation have been identified and prioritised for the continued conservation of Great Crested Newts, Water Voles and Pipistrelle Bats. Working in partnership with other organisations offers protection of key species and their habitats.

- 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. Working with British Waterways so as to enhance, rather than damage the plant's habitat, will allow conservation of the Floating Water Plantain (*Luronium natans*). 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.

- 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.

Acknowledgme

This summary has been compiled from information taken from the Roch/Irk/ Medlock Local Environment Agency Plan Annual Review. Thanks are due to the following Agency staff (based at Birchwood) who were responsible for the development of the Annual Review.

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