local environment agency plan

ROCH/IRK/MEDLOCK

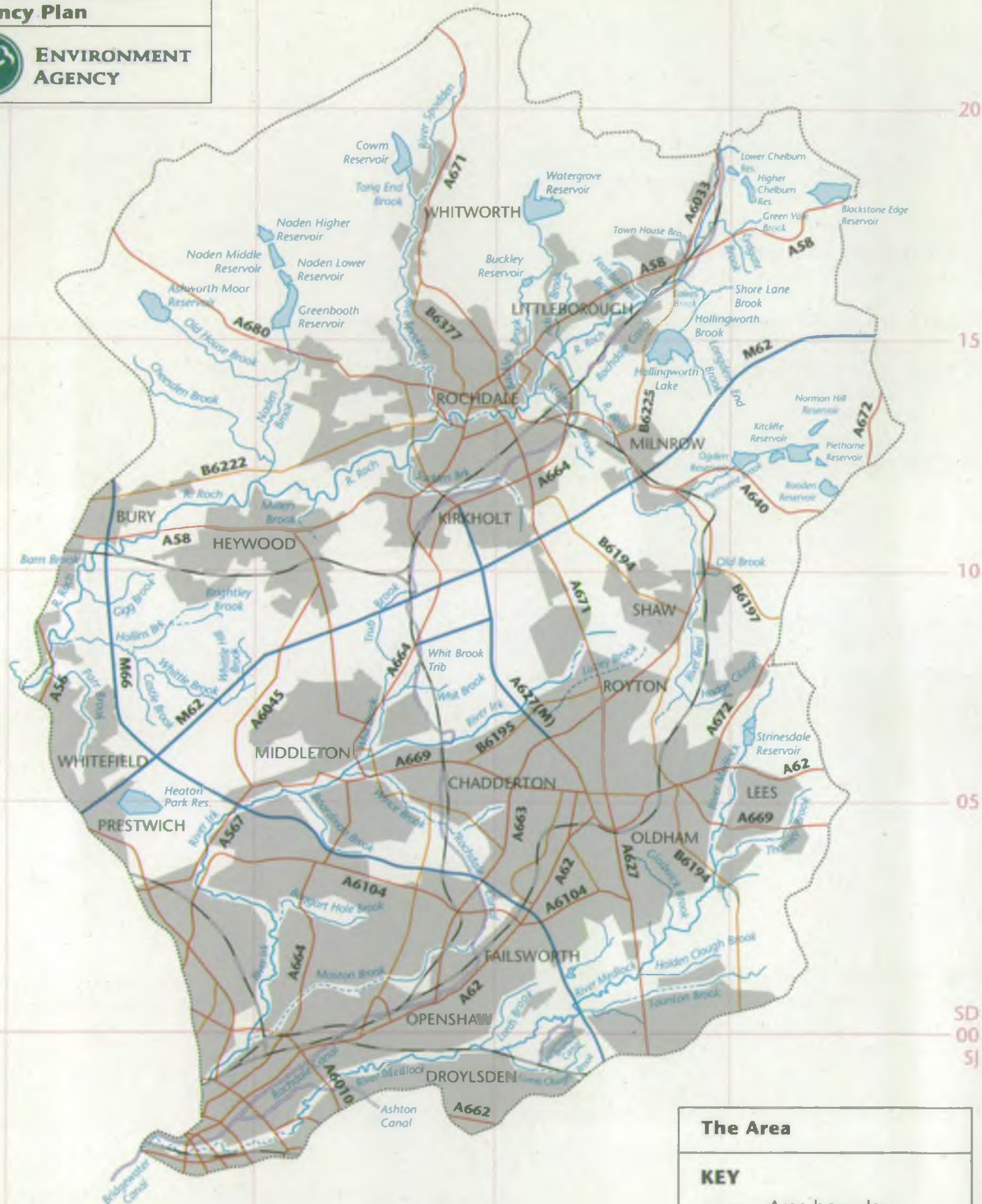
ACTION PLAN

NOVEMBER 1998

ENVIRONMENT AGENCY

Roch, Irk and Medlock Local Environment Agency Plan

ENVIRONMENT AGENCY



The Area

KEY

- Area boundary
- Watercourse
- Culverted watercourse
- Canal
- Built up area
- Motorway
- A road
- B road
- Railway

The Environment Agency's vision for the Roch/Irk/Medlock area.

The Environment Agency has a vision of "A better environment in England and Wales for present and future generations."

From this, the vision for this Local Environment Agency Plan (LEAP) area is of a sustainable environment capable of supporting diverse natural species and habitats, providing opportunities for recreational usage and access, and one which is valued by local people. This will be balanced with the need to maintain industry and employment cater for the area's social needs and the requirements of the population.

The Environment Agency will work in partnership with area users to realise the full environmental potential of the Roch/Irk/Medlock area and fulfil the vision. The aim will be to create and maintain a balanced environment which will meet the Agency's overall aim of contributing to the worldwide goal of Sustainable Development, which has been defined as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

The vision for the area is centred around an environmental quality that will have improved to a level that provides a healthy environment to live in, and supports naturally diverse species and habitats.

The treating, keeping, movement and disposal of controlled waste in the area will be regulated so as to prevent pollution of the environment, harm to human health, and serious detriment to amenity. Waste in the area will be managed in accordance with the principles of sustainability. In particular by reducing the amount of waste produced, making the best use of the waste that is produced, and choosing waste management practices which minimise the risk of immediate and future environmental pollution and harm to human health.

Watercourses will be managed to provide flood protection whilst maintaining naturally diverse river corridors. We would wish to see new development that is regulated to provide open river corridors with development sited to reduce the risk of flooding.

Water resources will be managed to enable sustainable cost-effective use that will ensure no unacceptable deterioration in quality or detriment to any existing water users, watercourses or other groundwater dependant features.

Land will be used in a sustainable way, protecting, enhancing and developing natural habitats and features, whilst restoring contaminated land and providing for the needs of the population.

Landscape and heritage features, including architecture and important areas of ecological value will continue to be protected and further protection will be given to new sites.

In achieving this vision of the Roch/Irk/Medlock area the Agency will continue to advise and work in partnership with organisations and enforce, where necessary, the relevant regulations

Recreational opportunities, and sites, will be maintained and improved when possibilities arise, whilst the impact of recreation activities will be balanced with the protection of the environment for future users.

Foreword

This Action Plan outlines the work and timetables that have been identified to work towards the resolution of the environmental issues raised in the consultation report for the Roch/Irk/Medlock Local Environment Agency Plan (LEAP) area. We undertook a three-month consultation period, on the report, during which we consulted widely on the issues and proposed actions we had raised for the area.

I would like to thank all those who participated in the process, whether it was through written communication or attending one of the workshops we ran. We were encouraged by the responses we received and the support for the LEAP process in general. Having taken all the comments we received into consideration we have now put together this Action Plan. The plan covers a five-year period during which time there will be Annual Reviews to update the plan and incorporate new issues.

The continued support of all those who have an interest in the environment of the area is essential for the success of the LEAP, mirroring the need for us all to work together if we are to achieve significant, lasting environmental improvements.

George Ager
Area Manager
South

KEY DETAILS

General	
Plan Area	325 sq km
Topography	
Highest point above sea level	470m
Lowest point	25m
Conservation	
Total number of Sites of Special Scientific Interest	2
Designated sites of nature conservation value	58
Water Resources	
Long term (1961-1990) annual rainfall Heaton Park	992mm/yr
" " " " " Ogden Reservoir	1305mm/yr
Flood Defence	
Length of Main River	182.5km
Waste Management	
Licenced Waste management operations in the area	81
Integrated Pollution Control	
Sites subject to the provisions of Integrated Pollution Control	13

Contacting the Environment Agency

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The Environment Planner LEAPs

CONTENTS

1. INTRODUCTION

1.1 The Environment Agency

The Environment Agency has a wide range of duties and powers relating to different aspects of environmental management. It is required and guided by Government to use these duties and powers in order to help achieve the objective of sustainable development. The Brundtland Commission defined sustainable development as *".... development that meets the needs of the present without compromising the obility of future generations to meet their own needs".*

At the heart of sustainable development is the integration of human needs and the environment within which we live. Indeed the creation of the Agency itself was in part a recognition of the need to take a more integrated and longer-term view of environmental management at a national level. The Agency therefore has to reflect this in the way it works and in the decisions it makes.

Taking a long-term perspective will require the Agency to anticipate risks and encourage precaution, particularly where impacts on the environment may have long-term effects, or when the effects are not reversible. The Agency must also develop its role to educate and inform society as a whole, as well as carrying out its prevention and enforcement activities, in order to ensure continuing protection and enhancement of the environment.

Although the Agency only has duties and powers to protect some environmental resources, it will need to contribute to other aspects of environmental management even if these are, in the first instance, the responsibility of others. The Agency can only do this effectively by working in partnership with and through others in order to set common goals and to achieve agreed objectives.

The Agency is committed to a programme of Local Environment Agency Plans (LEAPs) in order to produce a local agenda of integrated action for environmental improvement.

The Agency's aims are to:

- achieve major and continuous improvements in the quality of air, land, and water.
- encourage the conservation of natural resources, animals and plants.
- make the most of pollution control and river-basin management.
- provide effective defences and warning systems to protect people and property against flooding from rivers and the sea.
- reduce the amount of waste by encouraging people to re-use and recycle their waste.
- improve standards of waste disposal
- manage water resources to achieve the proper balance between the community's needs and the environment.
- work with other organisations to reclaim contaminated land.
- improve and develop salmon and freshwater fisheries.
- conserve and improve river navigation.
- tell people about environmental issues by educating and informing.
- set priorities and work out solutions that society can afford.

To achieve these aims, the Agency must work with, or seek to influence central government, local government, industry, commerce, farming, environmental organisations, riparian owners and the general public.

Successful management of the environment requires consideration of a wide range of interests and requirements that may sometimes be in conflict. The Agency will manage the environment through our main functions, which are:

- pollution prevention and control;
- waste minimisation;
- management of water resources;
- flood defence;
- improvement of salmon and freshwater fisheries;
- conservation;
- navigation;
- use of inland and coastal waters for recreation.

1.2 The Local Environment Agency Plan Process

A Local Environment Agency Plan or LEAP is the Environment Agency's integrated local management plan, for identifying and assessing, prioritising and solving local environmental issues related to the Agency's functions, taking into account the views of the Agency's local customers.

A LEAP is produced in three stages:

- The Local Environment Agency Plan Consultation Report.
- The Local Environment Agency Plan five year Action Plan.
- The Annual Review

Consultation Report

The Consultation Report for this LEAP was published in April 1998. This report highlighted the local issues that we had identified and suggested options to address them. This document was circulated to a wide variety of people and groups who have an interest in the area, to allow them to comment on the issues and options raised.

Consultation

The formal three month consultation period finished in June 1998 and incorporated a public launch of the LEAP and a set of consultative workshops.

The Agency is also required by law to consult committees on all aspects of its work in order to ensure openness and accountability. The North West Region is served by three statutory committees:

- Regional Environment Protection Advisory Committee (REPAC)
- Regional Flood Defence Committee (RFDC)
- Regional Fisheries, Ecology and Recreation Advisory Committee (RFERAC).

The South Area of the North West Region is served by its own advisory, non-statutory Area Environment Group (AEG). Membership consists of 22 local people who live and work in the area and who represent a wide range of interests and act as a link between the local community, the Agency and its statutory committees. These include Local Authorities, industries, agriculture, conservation, fishing, amenity and recreational interests. This group advises the Agency on LEAPs. The area also has a Local Flood Defence Advisory committee.

Action Plan

This plan contains actions to be carried out within the area over the next five years, which incorporate the comments raised through the consultation process. The plan details the nature of each action, costs, including external costs where possible, timescales and responsible organisations. The Agency will be seeking commitment to planned actions by others wherever possible.

Annual Review

The Agency will be jointly responsible, with other identified organisations and individuals, for implementing the Action Plan. Progress will be monitored and normally reported annually, by means of a review document that will be publicly available. The review document will comprise the following information:

- A detailed comparison of actual progress against planned progress.
- Identification of additional actions to maintain progress in the light of changes in the area.
- Consideration of the need to update the LEAP.

Updating of the LEAP will usually be carried out every five years although this is dependent on the particular needs of the area. Key organisations and individuals forwarding comments will receive the annual review to inform them of action plan progress.

Constraints

To ensure improvements and overcome the problems in the area, actions that in many cases are the responsibility of other organisations and individuals will be necessary. Where the Agency does not have the powers to make the necessary changes, it will endeavour to use its influence, to gain environmental improvements, wherever possible.

The process of drawing up the plans will involve close consultation with all interested parties. It will promote the effective, accountable and integrated delivery of environmental improvement at the local level. The plans will translate policy and strategy into delivery on the ground and will result in actions, either for the Agency to fulfil, or for others to undertake through influence and partnership. We believe the process will benefit the local community by influencing and advising external decision makers and public opinion. It will build trust by being open and frank when dealing with all issues.

Within the Region, we will complete public consultation on ten consultation plans in 1998 and on all plans by 1999. We will have started implementing five action plans in 1998 and all of them by the end of the year 2000.

2. REVIEW OF PUBLIC CONSULTATION

2.1 Summary of Public Consultation

The Environment Agency undertook consultation with interested bodies and the general public, and this document reviews the consultation process and briefly summarises the comments we received.

The Consultation Report was published in April 1998, marking the start of a three month consultation period. The document was posted out to over 300 parties, at this time, along with invitations to attend two workshops, to be held during the consultation period.

Also, 5000 summary documents were printed and these were sent out to libraries, council offices and other public premises, to publicise the Consultation Report. Presentations on the Consultation Report were also given to groups who requested them. These gave the opportunity for one to one contact and were rewarding for all parties.

Responses

We received a total of 74 responses that took two forms, either as letters of consultation on the full consultation document, or as returned questionnaires from the consultation report and summary document.

We received 22 written responses to the consultation report. The people and organisations are listed in **appendix 1**, together with an outline of the comments they made in **appendix 2**. All have been acknowledged and follow up questions answered where appropriate.

In general, the comments received were supportive of the concept of Local Environment Agency Plans (LEAPs) and the Roch/Irk/Medlock LEAP in particular. Useful comments on the issues and options raised were received and errors and omissions were also highlighted. Although we welcome these corrections, it should be pointed out that the supporting text in the Consultation Reports will not be reproduced.

52 questionnaires were returned from the documents. Many other general comments were made on the questionnaire and they have been summarised in **appendix 3**.

Workshops

Two workshops were held during the consultation process one in Oldham and one in Rochdale. Over 70 people attended these workshops, representing a full cross section of groups with an interest in the local environment. At these workshops we gave a presentation about our work and the issues we have raised for this LEAP area. We then facilitated workshop sessions where we opened the floor for those attending to give us their comments, on the LEAP and the work we are doing. These sessions provided a valuable forum for all parties, and gave us some useful comments to take away. An attendance list for the two workshops is given in **appendix 4**.

2.2 Future Action

Changes to some of the issues, options and proposals have been made as a consequence of the public consultation. New actions and partnerships have developed following meetings with key groups and interested individuals. The promotion of the issues in the Consultation Report has also identified on going activities and plans that we were not previously aware of. These have been considered within the production of this Action Plan.

3. OVERVIEW OF THE AREA

The area covered by the Roch/Irk/Medlock Local Environment Agency Plan (LEAP) is the geographical unit covered by the catchments of the Rivers Roch, Irk and Medlock. This area covers approximately 325 square kilometres and varies in height from 470m to 25m above ordinance datum (AOD). The area is situated to the North East side of Manchester and takes in a large area of the centre of Manchester, Oldham, Rochdale and part of Bury. Most of the area is covered by dense urban areas of the Manchester conurbation but it is fringed to the north and east by moorland. The population of the area is approximately half a million.

The area is dominated by urban development, both industrial and residential. This development occurred mainly through the nineteenth century, following the advent of the industrial revolution. During this period little value was placed on the environment and it was ruthlessly developed. It was the cotton textile industry which dominated the industrial development, with a wide range of manufacturing and service industries which supported the mills. Much of the area was exploited, with mines, quarries and small reservoirs and lodges associated with the textile mills.

The recent economic decline of the textile and supporting industries has left a legacy that can still be seen today and is responsible for many of the environmental problems in the area.

Air Quality

The Environment Agency has wide powers, but will need to work closely with others if environmental improvements are to be achieved. The Agency will need to look at partnerships with national and local government, business, industry and environmental and conservation groups to maximise its influence in securing environmental improvements. This is particularly important with regard to local air quality, where the Agency is only one of a number of regulatory bodies.

The local Authority has primary responsibility for local air quality. The Environment Agency has powers to regulate air quality principally by operating a Control (IPC) for certain industrial processes which stems from Part 1 of the Environmental Protection Act 1990 (EPA90). system called Integrated Pollution The processes regulated are the potentially most polluting industrial processes including large combustion plant, iron and steel making, the chemical industry, solvent recovery and incineration plants. Nationally there are approximately 2,500 of such licensed processes, of which there are 13 in the area covered by this LEAP.

Water Quality

The Environment Agency has duties under the Water Resources Act, 1991 and some European Union (EU) Directives to monitor the water quality in controlled waters. Within the Roch, Irk, Medlock Area this includes rivers and streams up to the quality survey limit (QSL), canals and some reservoirs. These obligations are satisfied through comprehensive chemical and biological sampling programmes. This water quality information is held on a public register and can be obtained by contacting the Customer Services Department at the Appleton House office.

The current chemical quality assessment for the area shows that the headwater streams, particularly in the Roch and Medlock catchments, can be of good quality, however, this declines to fair and possibly poor or bad in the urban areas. Of the 150 kilometres of classified river within the area three quarters is of fair quality or better although only a fifth is of good quality. The quarter of poor or bad quality is principally in the lower Irk and lower Medlock catchments. the 30 kilometres of classified Ashton and Rochdale canals within the area are of fair quality or better.

Water Resources

The 1995 Environment Act gives the Environment Agency the statutory duties and responsibilities relating to the planning and management of water resources.

It is specifically responsible for licensing, and enforcing, abstractions made from water held in natural underground storage and from all surface waters above the tidal low water mark. The responsibility for public water supply in the plan area lies with North West Water Ltd.

In the upper reaches of the River Roch catchment North West Water Ltd have a number of reservoirs that are used for public water supply. The combined licensed abstraction is 29,295 Megalitres/year.

The majority of the surface water abstraction licences in the area are for industrial usage. In addition to river abstractions there are a small number of industrial abstractors who are licensed to abstract from the Ashton Canal in Manchester.

Due to the geology of the area the majority of licensed groundwater abstractions are small scale agricultural and domestic supplies, predominantly in areas remote from the public water supply system. The majority of these abstractions are in the Roch catchment.

Flood Defence

The threat from flooding is always with us. While flood risks can never be eliminated completely, they can be reduced.

The Flood Defence function through its regional and local flood defence committees delivers a 24-hour service managing flood risk.

The flood defence powers, duties and responsibilities of the Agency are set out in the Water Resources Act 1991, Land Drainage Act 1991 and the Environment Act 1995.

There are over 182km of "Main River" within the LEAP Area, flowing through agricultural, residential and industrial areas.

The Agency has a major operational role to maintain, operate and improve flood defences where appropriate. Frequently, objectives are met by working in partnership with local authorities and central government that provide the majority of funding for flood defence work. Environmental assessment is an integral part of all our activities, together with decision making based on cost-benefit analysis and widespread consultation. Our duties and powers include the following:

- **Supervision** - exercising a general supervision over all matters relating to flood defence (which includes land drainage and water level management);
- **Flood warning** – operating a flood warning system and taking the lead role in passing flood warnings to people who live in the Agency's formal flood warning zones;
- **Maintenance and operations** – managing and operating flood defences and associated structures to reduce the incidence of flooding;
- **Improvements** – building new defences to reduce the risk of flooding. This includes the replacement of defences reaching the end of their effective life;
- **Regulate and Influence** - consent is needed from the Agency for certain works that may affect the watercourses and flood defences. Planning authorities, with the benefit of the Agency advice, are responsible for protecting the flood defence interests of people whose property may be affected by development proposals.

Waste Management

The management of controlled waste onto land is primarily regulated under Part II of the Environmental Protection Act 1990. The relevant provisions for licensing of waste activities were implemented on 1st May 1994. Activities that require a Waste Management Licence include landfill sites, transfer stations, metal recycling facilities, and waste storage and treatment facilities.

There are 81 currently licensed waste management operations within this area. One of the landfill sites is a major facility accepting large quantities of household, commercial and industrial waste, whilst others are licensed to accept a more restricted range of waste types, most commonly inert building and construction industry wastes.

A large number and range of activities in the area are exempt from licensing control, the most significant being for various recycling activities, land reclamation, and the spreading of waste on agricultural land. The quantities of waste involved can be considerable.

In common with many other areas, there is a significant problem of illegal waste disposal activity, including a high level of fly tipping.

The area has a major legacy of contaminated land resulting from its industrial past, including large numbers of old waste tips that operated before licensing control was introduced.

Industry already recycles large amounts of waste, either in-house as part of the process, or through the established reclamation industry. New 'producer responsibility' measures are being introduced to encourage businesses to reduce, reuse, recover and recycle waste materials. Household waste recycling is also encouraged in various ways involving Local Authorities and others, and the area has a variety of facilities where householders may deposit recyclable wastes, and some collection schemes, eg for waste paper.

Fisheries

The watercourses of the area can be split into two main habitat types. The upper reaches are fast flowing streams providing habitats suitable for trout and associated species. Downstream they become slower flowing and provide habitats for coarse fish species. Many of the upper reaches support good fish populations, but the picture is different as you move down stream. Fish populations are limited in some of the lower reaches due to poor water quality and restricted habitats. However, water quality is generally improving and fish populations are increasing, helped by the Agency's introduction of fish into some areas.

The canals of the area also support good coarse fish populations, as do the areas many large and small stillwaters.

Conservation

With much of the area being densely populated and industrialised its natural habitats and wildlife populations have been modified, reduced and fragmented. Despite this there are a number of Sites of Biological Importance (SBIs), many of which are located along river valleys, highlighting the importance of watercourses for conservation. There are also two nationally important sites, or Sites of Special Scientific Interest (SSSIs). The Hollingworth Branch Canal is one of these, noted for its submerged flora, which includes water soldier and floating water plantain. The second is part of the South Pennine Moors SSSI, which is also a Special Protection Area and falls within the boroughs of Rochdale and Oldham. This upland area was designated under the EC Directive on the Conservation of Wild Birds (1979) for its important assemblage of breeding moorland and moorland fringe birds.

The area also has a range of important natural habitats. These include a number of wetland sites from the River Irk Marshes at Chadderton to the remains of Royton Moss. Some of the wet grassland habitats in the area are relatively rich botanically and also provide valuable breeding habitats for birds.

The most distinctive woods in the area are associated with narrow valleys or cloughs where streams have cut deeply into the underlying strata. They are mostly concentrated in the Pennine fringe but others occur along the principal rivers. A number of these, such as Rowton Clough, are ancient woodlands, in other words have supported woodland continuously since before 1600 AD and are dominated by typical native vegetation.

Of particular conservation interest are the relatively unspoilt river corridors of the Ashworth Valley containing Cheesden, Naden and Old House brooks which are all grade A SBIs. Whittle Brook is of geomorphological interest. This small rural watercourse meanders across a relatively wide flood plain with numerous oxbows and earth cliffs.

Rochdale Canal, an SBI for its whole length, is an extremely important aquatic ecosystem particularly for submerged and emergent aquatic plants, marsh species and invertebrates. It contains the best stands in Greater Manchester of water violet, slender pondweed and floating water plantain, and is the best site in Britain for the rare American pondweed. The Ashton Canal is also an SBI. Hollingworth Lake, Ashworth Moor, Piethorne and Blackstone Edge reservoirs are all valuable sites for overwintering wildfowl. The large number of smaller lodges and reservoirs are a distinctive feature of the area and represent a considerable conservation resource.

Recreation and Amenity

The majority of water based recreation in the area is restricted to the canals or stillwaters, as opposed to the rivers. This is due to the physical nature and the water quality of the area's watercourses. There are many opportunities for both coarse and games angling on these waters, as well as some limited sections of the Rivers Roch and Medlock which provide coarse fishing.

Other water sports, such as, windsurfing, sailing, water-skiing and canoeing are well catered for in the area, again on the stillwaters and canals. Clubs are established on many of the larger stillwaters, including Hollingworth Lake, Watergrove Reservoir, Cowm Reservoir and Heaton Park Lake.

Sections of the Rochdale, Ashton and Bridgewater Canals in this area provide important recreational sites both for boat users and wider recreational activities.

Walking and bird watching are also well catered for in the area. Much work is being done to create new footpath access and circular routes.

4. PROTECTION THROUGH PARTNERSHIP

General

The Department of the Environment's Statutory Guidance under Section 4 of the Environment Act 1995 describes how the Agency should contribute towards the objective of attaining sustainable development. In particular it concludes that the Agency should:

- make use of integrated catchment management planning or other integrated geographical management tools in order to take a holistic approach to the protection and enhancement of the environment
- strive to develop close and responsive relationships with the public, local authorities and other representatives of local communities, regulated organisations and public bodies with environmental responsibilities. It should also strive to work in partnership with all such groups.

The protection of the environment on a local and global scale requires partnership and cooperation, if we are to be successful in achieving sustainable development as described by the World Commission on Environment and Development, in the Brundtland Report. To this end the Environment Agency is involved in many partnerships and funds many projects.

This section will outline some of this involvement within the LEAP area and the South Area of the North West Region.

Development

The Environment Agency is taking a pro-active role in the land-use planning system. This is in terms of guiding and advising Local Planning Authorities (LPAs) and developers on matters concerning air quality, the water environment and waste management. The aim is to ensure future development is sustainable and land use change is guided and implemented within the overall aim of protecting and enhancing the whole environment.

Planning policy within the Plan area is guided by Regional Planning Guidance for the North West RPG 13, April 1996. This sets the strategic planning framework for the Region, highlighting development pressures and the development framework for such issues as the environment, the economy and housing etc.

Mersey Basin Campaign

The Mersey Basin Campaign is the 25 year, government backed partnership, which brings together local authorities, businesses, voluntary organisations, and government sponsored agencies, to deliver water quality improvements and waterside regeneration throughout the Mersey Basin river system. The aims of the Campaign are;

- to improve water quality so that all rivers, streams and canals are clean enough to support fish
- to stimulate the development of attractive waterside environments - for businesses, housing, tourism, heritage, recreation and wildlife
- to encourage people to value and cherish their watercourses and waterfront environments.

At a local level River Valley Initiatives (RVIs) are realising the aims of the Mersey Basin Campaign. Local steering groups use the full range of Campaign resources, initiatives and partners along specific stretches of river to deliver Campaign objectives in a planned and coordinated way.

The Agency works closely with the campaign and also with the RVIs. Within the LEAP area there is one RVI, Beal Valley Partnership, which covers the catchment of the Beal. Across the rest of the South Area, there are many more RVIs, which are supported by the Agency.

Water Watch is an initiative to reduce the waterborne debris in the Mersey Basin area by raising public awareness, appraising and giving specific advice on urban debris problems. It has developed successful partnerships with local authorities, businesses and local communities, to tackle problems in the area's rivers and canals. Water Watch is now working throughout the Mersey Basin area. The project to improve the urban water environment is a partnership between the Mersey Basin Campaign, the Environment Agency and the Tidy Britain Group who manage the project.

Within the LEAP area, Water Watch in the past have carried out a survey and sought to reduce litter in the waterways of central Manchester, including the lower stretches of the Irk and Medlock. In 1995/6 Water Watch appraised the waterside litter and debris problem on Buckley Brook in Rochdale and stimulated action, to tackle the problem, by Local Authority, youth and school groups and local businesses. At present a survey is being carried out on the Beal catchment, on behalf of the Beal Valley Partnership, to assess the extent, location and sources of waterside littering and a report suggesting measures for tackling these problems will be presented to the Partnership.

The Water Detective Project, from the Mersey Basin Campaign, helps teachers to carry out river studies with their students by providing hands on expertise and resources.

Stream Care is also a project to come out of the Mersey Basin Campaign. The Countryside Commission, North West Water Ltd. and the Agency fund it. The project backs local groups on small-scale projects.

A number of projects have taken place, or are on-going in the area. On the River Spodden, the Friends of Healey Dell organise twice yearly clean-ups and Falinge Park High school has adopted a stretch of the river. A small length of Foxholes Brook is leased by local residents and is being developed as a wildlife area and study site for local schools. Stream Care helped to organise a large clean-up of this part of the brook in 1997. A clean-up of a section of Butterworth Hall Brook near Milnrow shopping centre was organised in 1996 and further work has taken place. The river Irk in Middleton has received attention, both during the Mersey Basin Weekend held every October, and the National Spring Clean. Middleton Technology School removed litter from Myrtle Brook in 1996. These projects are supported by Stream Care who give advice and provide some equipment such as, waders and gloves.

Biodiversity

"BIODIVERSITY: THE VARIETY OF LIFE. Biodiversity is all living things, from the tiny garden ant to the giant redwood tree. You will find biodiversity everywhere, in window boxes and wild woods, roadsides and rain forests, snow fields and sea shore."
Biodiversity: The UK Steering Group Report 1995

The Biodiversity Convention, signed by the UK Government at the Rio 'Earth Summit' in 1992, aims to ensure that the full range of animal and plant species are conserved.

In 1994, the UK Government published its UK Biodiversity Action Plan as a framework document laying out the government's proposals for protecting biodiversity in the UK. Through this plan, an UK Steering Group was established to develop targets for rare and vulnerable habitats and species and provide guidance at a local level.

The Environment Agency has significant responsibilities regarding implementation of the UK Biodiversity Action Plan and will be developing targets for species and habitats of conservation concern.

Local Biodiversity Action Plans (LBAPs) are seen as an essential method through which the UK targets can be achieved, by translating them into effective action at a local level. LEAPs are seen as a key mechanism for identifying the actions the Agency needs to take at a local level to deliver its contributions towards individual species and habitat action plans.

Our operational and regulatory activities will take account of these species and habitats in fulfilment of our commitment to biodiversity. Additional work will be dependent on available resources and will involve collaborative work with other bodies.

Other Partnerships

Business Links Oldham
Business Links Rochdale
English Nature
Greater Manchester Recycling Officers Forum
Greater Manchester Wildlife Working Group
Greater Manchester Ecology Unit
Greater Manchester Archeology Unit
Green Business Club
Groundwork Trust Manchester
Joint Vehicle Check Liaison
Lancashire Wildlife Trust
Manchester Environmental Forum
Medlock Valley Project Group
Medlock Valley Wardens
Minerals and Waste Planning Forum
Oldham Resource Efficiency Project
Pond "Life" Project
Red Rose Forest
Rochdale& Oldham Groundwork Trust
Royal Society for the Protection of Birds
South Lancs Bat Group

5. ACTIONS

5.1 Implementation

Implementation of this plan is based on the 27 key issues set out and discussed in the Consultation Report. These issues have been modified where appropriate in the light of comments received during the consultation period. The resolution of these issues is considered necessary in order that the plan can achieve real improvements in the area.

The consultation process generally supported the issues and options raised by the Agency. Many of the options have been carried through into the action plan but some new options and approaches have been taken.

5.2 Issues

The issues are presented with a number of actions, a target timetable and the identification of responsible parties. Where possible, costs have been outlined for the period covered by the plan. This does not necessarily reflect the total cost of the schemes and is sometimes a projected estimate to be more accurately costed later. The names put against the options are those of Area Management Team member whose function is responsible for the action. This document is produced in good faith, recognising current priorities and funding, both within the Agency and other organisations. Future Annual Reviews will include more targeted costings and specific sites after these have been investigated.

The issues we are putting forward within this LEAP are environmental problems that fall within the areas of responsibility of the Agency. They have been grouped according to the Agency's principal and immediate concerns as set out in our document "An Environmental Strategy for the Millennium and Beyond" Which are:

- Addressing Climate Change
- Improving Air Quality
- Managing our Water Resources
- Enhancing Biodiversity
- Managing our Freshwater Fisheries
- Delivering Integrated River Basin Management
- Conserving the Land
- Managing Waste
- Regulating Major Industries

Issue List

5.3 Addressing Climate Change

No specific Issues

5.4 Improving Air Quality

No specific Issues

5.5 Managing our Water Resources

Issue 1: The need for the effective use of water resources to reduce environmental impacts
Issue 2: Impact of increasing urbanisation on the management of the hydrological cycle

5.6 Enhancing Biodiversity

Issue 3. The need for continued habitat improvement and protection of existing wildlife habitats to conserve and enhance biodiversity.
Issue 4. Invasive non native pest species
Issue 5. The adverse impact of widespread channelisation and modification of watercourses on natural river form and wildlife habitats.

5.7 Managing our Freshwater Fisheries

Issue 6. The need for the restoration of freshwater fisheries as water quality improves.

5.8 Delivering Integrated River Basin Management

Issue 7. Adverse impact of discharges from NWW Ltd. Wastewater Treatment Works (WwTW) on the aquatic environment
Issue 8. Adverse impact of discharges from sewer overflows on the aquatic environment
Issue 9. Adverse impact of contaminated surface water discharges on the aquatic environment
Issue 10. Incomplete understanding of the causes of adverse impacts on the aquatic environment.
Issue 11. Lack of rural public sewerage in the Whittle Brook catchment leading to localised pollution.
Issue 12. Aesthetic impact of quarry drainage from Aggregate Industries UK Ltd. quarry on Tong End Brook and the River Spodden.
Issue 13. Adverse impact of ocherous discharges on the aquatic environment
Issue 14. Adverse impact of run-off from Stake Hill Industrial Estate on Whit Brook.
Issue 15. Impact of M60 motorway construction on the aquatic environment.
Issue 16. The presence of blue-green algae in Hollingworth Lake causing water quality concerns and loss of amenity.
Issue 17. Lack of awareness and restricted access to watercourses for recreational activities.
Issue 18. Culverts causing flood risk and loss of habitat
Issue 19. Dereliction adjacent to and within the watercourse leading to increased flood risk, loss of built heritage and decrease in environmental quality.
Issue 20. Poor access to watercourses for maintenance works
Issue 21. Sediment deposition causing increased flood risk
Issue 22. Properties at risk of flooding.
Issue 23. The need to balance the potential impacts of the restoration of the Rochdale canal.
Issue 24. Adverse impacts of flies from Wince Brook

5.9 Conserving the Land

Issue 25. Impact of contaminated land on the environment

5.10 Managing Waste

Issue 26. Lack of awareness and implementation of the government's strategy for sustainable waste management (the "Waste Hierarchy").
Issue 27. The adverse environmental impact of unauthorised waste management activities (including flytipping).

5.11 Regulating Major Industries

No specific issues

Key to issue tables

>	Greater than.
●	Action in the year indicated.
R	Recurring, non-additional cost to annual budgetary provision.
U	Unknown cost at this time.
U(i)	Individual costs will be identified and agreed during negotiations.
U(ii)	Capital costs will be identified during investigations and surveys.
K	£1,000

5.3 ADDRESSING CLIMATE CHANGE

Climate change is an issue that has no boundaries and is truly international in scale. Within a local planning document such as a LEAP it can only be addressed by looking at local contributions to a global problem. Addressing climate change in the UK will require action by everyone, from the Department of the Environment, Transport and Regions, through the Local Authorities, to business and every member of society. The Agency has set this as one of the key themes in its Environmental Strategy that includes the following objectives:

- help to ensure that the Government's greenhouse gas emission reduction targets are met;
- develop methods to improve our estimates of the emissions of methane into the atmosphere from landfill sites;
- promote tax incentives to reduce energy production from burning fossil fuels;
- set an example by reducing our own energy and fossil fuel consumption;
- invest in research to predict the likely effects of climate change on the environment of England & Wales, and how to manage them;
- provide improved mapping of low-lying coastal areas at risk from sea-level changes;
- develop techniques to identify changes in plant life, using remote sensing techniques, to measure the effects of different weather patterns in sensitive areas; and
- contribute our knowledge and expertise to national and international forums dealing with climate change.

Much of the Agency's existing work and the proposals contained within this plan will help to achieve some of these objectives. For example, we are working to reduce our vehicle use and to improve the efficiency of our vehicles to reduce releases of the gases that contribute to climate change. Agency staff in the area have also been looking at their own impacts by taking part in a one year project called Action at Home, which is part of the Global Action Plan. This was a voluntary scheme aimed to encourage positive action for the environment, by encouraging people to change their everyday activities.

We have not, however, identified any specific local issues relating to addressing climate change and therefore there are no issues in this section. As previously stated many of the issues raised in this LEAP have an impact on climate change.

5.4 IMPROVING AIR QUALITY

Air quality is another issue that knows no boundaries. Its freedom to travel means that problems can spread away from points of origin, although specific problem areas can be created. In a local planning document it is possible to address specific points of origin and problem areas, but it is not possible to address problems coming in from outside the area. 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. The Agency has set this as one of the key themes in its Environmental Strategy that includes the following objectives:

- help the government deliver its Air Quality Strategy;
- ensure emissions from the major industrial processes to the atmosphere are reduced;
- ensure specific emissions of sulphur dioxide and oxides of nitrogen, which contribute to acid rain are reduced;
- discourage the use of solvents in industry, which contribute to the production of ozone, the major photochemical pollutant; and
- set an example in reducing emissions from vehicles by reducing our own mileage and increasing the use of public transport.

Parts of the Agency's existing work and the proposals contained in this plan will help achieve some of these objectives.

Air quality, in most of the area covered by this LEAP, is being investigated by the Greater Manchester Air Quality Management Steering Group. This group is made up of representatives of the local authorities within the Association of Greater Manchester Authorities. The Agency has an input to the group and supplies information on processes that we regulate. The Atmospheric Research and Information Centre, based at Manchester University, is providing information and interpretation on air quality to the group. Air quality issues within this LEAP area will be addresses by the steering group and therefore, we are not raising any specific issues in this LEAP. We support the work of the group and will continue to provide any information we can.

5.5 MANAGING OUR WATER RESOURCES

ISSUE 1 THE NEED FOR THE EFFECTIVE USE OF WATER RESOURCES TO REDUCE ENVIRONMENTAL IMPACTS

Water is supplied into the public water supply system to meet demand. The demand is generated by customers using water and losses through leakage from the distribution network.

Historically water has been a cheap commodity for industry and an unlimited, uninterrupted supply is viewed as a right by domestic customers. These factors, together with domestic charging schemes, have contributed to a culture of inefficient usage of water and little recognition of its true value.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Education and raising public awareness	Environment Agency	NWW Ltd	R(a)	●	●	●	●	●	●
2. Reduce leakage to economic levels	NWW Ltd	Environment Agency	U(b)	●	●	●	●	●	●
3. Reduce domestic leakage and demand	General Public. NWW Ltd.	Environment Agency	R(c)	●	●	●	●	●	●
4. Introduce demand management measures	NWW Ltd	Environment Agency	R(c)	●	●	●	●	●	●
5. Monitor effectiveness of demand management measures	NWW Ltd	Environment Agency	R(a)	●	●	●	●	●	●

(a) The Agency has appointed a demand management coordinator to encourage use of demand management techniques within the Region and the LEAP area. North West Water Ltd has agreed mandatory leakage reduction targets for 1998/9 and 1999/2000 with OFWAT.

(b) North West Water currently have, 45 million per annum, budgeted to mains leakage across the North West and a proportion of this will be spent in this LEAP area. This sum of money may change over future years.

(c) North West Water Ltd have produced literature to raise awareness on these problems and introduced initiatives such as free external leak repairs for domestic customers and a free phone "Leakline" for the reporting of leaks and burst water mains.

Across the Region North West Water Ltd over the last three years (1994/5 to 1998/9) have reduced leakage by nearly 300 Ml/d and are committed to reducing leakage by a further 64 Ml/d during 1998/9. North West Water Ltd has achieved a 40% reduction in total leakage from 948 Ml/d in 1992/3 to 579 Ml/d in 1997/8 and are on target to achieve the mandatory regional total leakage target of 515 Ml/d by March 1999 as set by the Director-General of OFWAT. The LEAP area is contained within the Manchester East Demand Zone; the target reduction in total leakage in these demand zones is 48 Ml/d by the year 2000.

ISSUE 2 IMPACT OF INCREASING URBANISATION ON THE MANAGEMENT OF THE HYDROLOGICAL CYCLE

It is not proposed to continue with this issue within the context of this LEAP action plan as there are not considered to be any site specific issues of this nature that require remedial action within the life of this LEAP. Initiatives are underway, however and the Agency has produced a Sustainable Urban Drainage Policy that will be used to influence both Local Authorities and developers, including such bodies as the National House Builders' Association where appropriate.

There is now a Memorandum of Understanding between North West Water PLC and the North West Region of the Environment Agency, on Urban Drainage. The aim of this document is to develop and review an Action Plan to promote and encourage the development of Sustainable Urban Drainage Systems and to develop expertise through implementation of sustainable urban drainage.

5.6 ENHANCING BIODIVERSITY

ISSUE 3 THE NEED FOR CONTINUED HABITAT IMPROVEMENT AND PROTECTION OF EXISTING WILDLIFE HABITATS TO CONSERVE AND ENHANCE BIODIVERSITY

National Biodiversity targets are to be translated into effective action at a local level through the development of Local Biodiversity Action Plans (LBAPs).

Within the LEAP area the diversity of natural features and habitats, from moorland to meanders, hedgerows to haymeadows, ponds and ex-industrial reservoirs, need to be conserved and enhanced to sustain viable populations of wildlife species. Wetlands, bankside trees, riffles and pools in rivers all contribute to biodiversity.

A North West Biodiversity Audit is due to be completed at the end of 1998 which will, in addition to guidance produced by a National Steering Group, provide assistance to Greater Manchester Ecology Unit in the production of a LBAP for Greater Manchester. The Audit of existing records will set priorities and targets for habitats and species of plants and animals.

Species on the short list of globally threatened or declining species in the UK biodiversity Steering Group Report 1995 known to occur in the LEAP area include Great Crested Newts, Water Voles (for which The Agency is the contact point), Pipistrelle Bats and Floating Water Plantain.

Species on the medium/long list that are relevant to this area include bats, a number of bird species, common frog, common toad, smooth and palmate newts.

Key habitats include canals, ponds and lodges, blanket bog, unimproved grassland, heathland, woodland and hedges. Mill ponds and lodges are a particular feature of this area. The Environment Agency has undertaken some works on restoring mill ponds. For example, Boarshaw Clough.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Continue to contribute to the development of Biodiversity initiatives, for example LBAPs and Species Action Plans.	Local Authorities, GMEU, EN, RSPB, specialist local groups.	Environment Agency (A.R. Lee)	R	●	●	●	●	●	●
2. Work in partnership with other organisations to protect key species and habitats identified from LBAPs	Environment Agency (A.R. Lee) Local Authorities, GMEU.	Pond Life, local wildlife organisations and specialist groups.	R	●	●	●	●	●	●
3. Monitor and record the status and distribution of the Water Vole within the area in order to protect and enhance populations	Environment Agency (A.R. Lee) E.N	Local Authorities, local wildlife organisations and specialist groups.	U(a)	●	●	●			

4. Monitor and record the status and distribution of Great Crested Newts within the area in order to protect and enhance populations.	GMEU, Pond Life, E.N., Environment Agency (A.R. Lee)	Local Authorities, local wildlife organisations and specialist groups.	U	●	●	●	●	●	●
5. Collate and update information on other key species within the area, for example Pipistrelle Bats, Floating Water Plantain.	GMEU, E.N., RSPB, Widlife Trusts, Environment Agency (A.R. Lee)	Local Authorities, local wildlife organisations and specialist groups.	U	●	●	●	●	●	●
6. Work in partnership with other organisations to promote the restoration of vulnerable landscapes and habitats and identify opportunities for habitat creation	Environment Agency (A.R. Lee)	Local Authorities, FWAG, MAFF, Wildlife Trusts, CPRE, landowners, developers.	U(b)	●	●	●	●	●	●

(a) = funds may be made available for specific surveys. These will be reported on in future reviews of this plan.

(b) = as and when funds become available. These will be reported on in future reviews of this plan.

ISSUE 4 INVASIVE NON NATIVE PEST SPECIES

Many species of non-native plants and animals now live and breed in the wild in Britain. Some plants have spread from ornamental gardens where they were introduced in the 19th century. Japanese Knotweed, Himalayan Balsam and Giant Hogweed are present throughout the area.

Some exotic plants, sold to provide oxygen in ponds and aquaria, have been discarded or deliberately introduced into water bodies. These include *Crassula helmsii*, Australian swamp stonecrop, *Myriophyllum aquaticum*, Brazilian water milfoil, *Lagriosiphon major*, curly pondweed, and *Azolla*, or water fern.

Animals such as mink and crayfish have been farmed in this country and have escaped into the wild or deliberately released and now threaten native species.

Effects

Native plants and animals are under threat from these invasive species through competition, predation or disease.

Winter die down of invasive plants can lead to unstable and eroding river banks.

Contact with Giant Hogweed can cause severe irritation, swelling and painful blistering.

Habitats and watercourses can be altered by extensive growth of invasive plants.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Investigate the extent of Japanese Knotweed, Himalayan Balsam and Giant Hogweed in the area.	Environment Agency (A.R. Lee)	Local Authorities, Ranger Services, landowners, general public.	U	●	●	●	●	●	●
2. Carry out appropriate control programmes	Environment Agency (P. Younge)	Local Authorities, Ranger Services, landowners.	U	●	●	●	●	●	●
3. Encourage control of invasive plants as part of developments and Agency capital schemes to prevent further spread.	Environment Agency (P. Younge & A.R. Lee)	Local Authorities, developers.	R	●	●	●	●	●	●
4. Collate information on other non native pest species in the area, for example mink, signal crayfish, *Azolla, Crassula.*	Environment Agency (A.R. Lee)		U	●	●	●	●	●	●

5. Support the establishment of a Code of Conduct for trade in water plants.	MAFF, Environment Agency (A.R. Lee)	E.N., IFE, Aquatic Weed Research Centre, The Garden Centre Association, garden centres.	U	●	●	●	●	●	●
6. Launch a campaign to increase public awareness of the problems and to reduce introductions in the wild.	MAFF, Environment Agency (A.R. Lee), E.N.	IFE, Aquatic Weed Research Centre, The Garden Centre Association, garden centres.	U	●	●	●	●	●	●
7. Encourage commercial outlets to advise customers not to release or introduce plants or animals into the wild.	MAFF, Environment Agency (A.R. Lee), E.N.	IFE, Aquatic Weed Research Centre, The Garden Centre Association, garden centres.	U	●	●	●	●	●	●

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

It is currently an offence to release any animal into the wild without a licence or to plant or cause to grow Japanese Knotweed and Giant Hogweed in the wild under the Wildlife and Countryside Act 1981.

Himalayan Balsam and Crassula helmsii will be added to schedule 9 of the Act in a forthcoming review.

ISSUE 5 THE ADVERSE IMPACT OF WIDESPREAD CHANNELISATION AND MODIFICATION OF WATERCOURSES ON NATURAL RIVER FORM AND WILDLIFE HABITATS

Many watercourses in the area have been straightened, deepened, widened and their river corridors narrowed and modified to the detriment of wildlife, landscape and amenity. Diverse natural riverine habitats are replaced by unattractive uniform watercourses bringing problems such as siltation.

The Environment Agency works to protect remaining areas of green river corridors or geomorphological diversity. Some man-made features such as stone walls are also of historic or cultural value.

Where possible we aim to rehabilitate or enhance degraded rivers by, for example, reintroducing meanders, weir removal, tree planting or reinstatement of riffles.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Identify and prioritise stretches suitable for enhancement and rehabilitation	Environment Agency (A.R. Lee)	Local Authorities, Groundwork Trusts, landowners.	U	●	●	●	●	●	●
2. Implement enhancement and rehabilitation schemes as funds become available or in conjunction with other schemes.	Environment Agency (P.Younge & A.R. Lee)	Local Authorities, Groundwork Trusts, landowners, developers	U	●	●	●	●	●	●
3. Research approaches and techniques for enhancement and rehabilitation.	Environment Agency (A.R.Lee)		U	●	●	●	●	●	●

5.7 MANAGING OUR FRESHWATER FISHERIES

NEW ISSUE 6 THE NEED FOR THE RESTORATION OF FRESHWATER FISHERIES AS WATER QUALITY IMPROVES.

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 North West Water 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.

There has been great success in the River Medlock in recent years where there are now stretches of river maintaining good coarse fisheries.

The river Irk now has reaches where we will be carrying out trial stockings of fish from our Leyland Hatchery.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. To carry out a study to investigate the most appropriate sites to initiate a 'pump priming' stocking exercise on the River Irk.	Environment Agency.	North West Water, Angling groups	U	●					
2. Carry out stockings within the Irk River Catchment.	Environment Agency.	North West Water, Angling groups	U		●	●	●		●
3.Survey to monitor the success of the fish introduction.	Environment Agency.	North West Water, Angling groups	U			●	●	●	●

5.8 DELIVERING INTEGRATED RIVER BASIN MANAGEMENT

ISSUE 7 ADVERSE IMPACT OF DISCHARGES FROM NWW LTD. WASTEWATER TREATMENT WORKS (WwTW) ON THE AQUATIC ENVIRONMENT

There are a number of North West Water Ltd. WwTWs which discharge treated sewage and industrial effluent to the LEAP area's watercourses. Discharges from the four largest WwTWs, Rochdale, Oldham, Royton and Failsworth, have significant impacts on the water quality of their receiving watercourses causing them to fail to meet their River Ecosystem (RE) River Quality Objectives (RQOs). In addition to these, there are a number of smaller works including Castleton, Doctor Fold, Lydgate and Park Bridge. In times of dry weather some of these works can form a significant part of the flow in the receiving watercourse and may also have a detrimental impact on their aquatic ecosystems.

Improvements at Oldham, Failsworth, and Royton WwTWs are programmed to be undertaken under AMP2 and will be completed before 31st March 2000. Improvements at Rochdale WwTW will depend upon whether funds are secured in the AMP3 investment programme covering the years from 2000 to 2005.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Reduction in the organic load discharged from Oldham WwTW, Failsworth WwTW, Royton WwTW to achieve/maintain compliance with short term River Ecosystem RQOs	NWW Ltd.		U	●	●				
2. Evaluate requirements for (further) improvements at WwTWs for achievement of long term River Ecosystem RQOs and pursue expenditure in NWW LTD. 's capital programme.	Environment Agency (S.C. Lever)		R	●	●				
3. Evaluate the requirement for reduction in colour of the effluent from Rochdale WwTW.	Environment Agency (S.C. Lever)	NWW Ltd.	U	●	●				
4. Identify potential "sensitive" areas under the EU Urban Wastewater Treatment Directive and apply a monitoring strategy to put forward a case for designation in 2001	Environment Agency (S.C. Lever)		U	●	●	●	●		

ISSUE 8 ADVERSE IMPACT OF DISCHARGES FROM SEWER OVERFLOWS ON THE AQUATIC ENVIRONMENT

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, ie, when adequate dilution should be available in the receiving water. Greater flows entering the sewerage system due to development within the area, has often resulted in inadequate capacity within the sewer. CSOs operate more frequently, which may discharge prematurely during storm events of lower severity. The effect of this is an adverse impact on surface water quality. Overflows of poor design or dilapidated structure may also be prone to blockage, potentially causing discharge in dry weather.

Emergency overflows from sewage pumping stations can also cause problems when the station is inoperative as a result of power failure or mechanical breakdown.

There are a number of overflows within the LEAP area which are programmed to be improved under AMP2 and this will all be completed by 31st March 2000. Improvements to other unsatisfactory CSOs will depend upon whether funds are secured in the AMP3 investment programme covering the years from 2000 to 2005.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
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.	NWW Ltd.	Local Authorities	U	●	●				
2. Evaluate requirement and pursue expenditure to reduce organic and debris load from remaining unsatisfactory sewer overflows throughout the LEAP area.	Environment Agency (S Lever)	NWW Ltd.	R	●	●				

ISSUE 9 ADVERSE IMPACT OF CONTAMINATED SURFACE WATER DISCHARGES ON THE AQUATIC ENVIRONMENT

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. Where dual manholes occur, damage to the dividing wall or blockages in the foul sewer, can result in foul drainage entering the adjacent pipes. Additionally, contaminated liquids can occasionally 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 is discharged.

A regional priority list of contaminated surface waters has been compiled to identify where cross connections are having the greatest impact on the receiving watercourse. Negotiations between the Agency and NWW Ltd. have resulted in money being allocated to address a large proportion of the highest priority wrong connections in the North West region. The main priority in the Roch, Irk, Medlock LEAP area is Oozewood Road, Royton that affects the River Roy. Further funding will need to be secured before other examples in the LEAP area namely, Linney Lane, Shaw; Meadowcroft Lane, Bamford; and Turner Street, Waterhead, are corrected.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1.Identification of wrong connection problems.	Environment Agency (D Forster)	Local Authorities	R	●	●	●	●	●	●
2. Correction of wrong connections to reduce pollution.	NWW Ltd.	Local Authorities Householders Industry Agents	U	●	●	●	●	●	●
3. Promote awareness of the problem and new means of surface water control.	Environment Agency (D Forster)	NWW Ltd. Local Authorities	R	●	●	●	●	●	●

ISSUE 10 INCOMPLETE UNDERSTANDING OF THE CAUSES OF ADVERSE IMPACTS ON THE AQUATIC ENVIRONMENT

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. In addition to these unidentified sources, water quality problems may have been exacerbated by lower than normal flows due to the drought conditions of recent years.

The Agency undertakes a programme of routine biological monitoring of watercourses which is able to identify the impacts of pollutants which are not currently identified through routine chemical monitoring. This has identified that there are many watercourses where the aquatic invertebrate communities have been impaired, indicating a poorer water quality than has been detected in chemical samples. This is an issue in much of the Roch, Irk and Medlock catchments and can be explained, in part, by the greater sensitivity of biological monitoring to toxic pollution. It may also be due to the fact that biological grades take into account the quality of the river habitat that in much of the area is poor.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1.Improve understanding of reasons for not complying with long term RQOs.	Environment Agency (S.C. Lever)		R	●	●	●	●	●	●
2. Investigate cause of failure to comply with the Freshwater Fish Directive at Blackstone Edge Reservoir	Environment Agency (D Forster)		R	●	●				
3. Investigate watercourses where invertebrates are impaired which is not fully accounted for by chemical quality.	Environment Agency (A. R. Lee)		R	●	●	●	●	●	●
4. Investigate where habitat improvements could improve biological quality and pursue where appropriate	Environment Agency (A. R. Lee)	Local Authorities, Landowners, Developers, Fishing Interests and Wildlife Groups.	U	●	●	●	●	●	●

ISSUE 11 LACK OF PUBLIC SEWERAGE IN THE WHITTLE BROOK CATCHMENT LEADING TO LOCALISED POLLUTION

The lack of sewerage systems and associated sewage treatment works within this relatively rural area of the LEAP area has resulted in a number of private septic tanks and small treatment plant discharges. The Environment Agency is generally against such proliferation because a single, large sewage treatment works typically performs more efficiently than multiple, small plants as a result of better flow and load balance. Significant localised pollution has occurred when plants have been poorly maintained

Improvements can be achieved by the provision of public sewerage under Section 101a of the Water Industry Act 1991[1]. This places a duty on the sewerage undertaker to provide public sewers for domestic purposes for any premises which are existing or substantially completed by 20th June 1995, where environmental or amenity problems arise.'

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Ensure adequate maintenance and performance of private STWs and septic tanks	Environment Agency (D Forster)	Private Owners, Local Authorities.	R	●	●	●	●	●	●
2. Provision of public sewerage under Section 101a of the Water Industry Act, 1991.	NWW Ltd.	Local Authorities Environment Agency (D Forster)	U	●	●	●	●	●	●

Note[1] NWW Ltd. should be contacted for details of the criteria needed before an application for a public sewer can be made.

ISSUE 12 AESTHETIC IMPACT OF QUARRY DRAINAGE FROM AGGREGATE INDUSTRIES UK LTD. QUARRY ON TONG END BROOK AND THE RIVER SPODDEN

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

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Continue current monitoring programme and seek further improvements to site drainage as required	Environment Agency (D Forster)	Aggregate Industries UK Ltd.	U	●	●				

ISSUE 13 ADVERSE IMPACT OF OCHREOUS DISCHARGES ON THE AQUATIC ENVIRONMENT

Ochre is a reddish brown suspension caused by the oxidation of iron minerals. Such ochreous suspensions have a high aesthetic impact through discolouration and also deplete aquatic life. Ochre deposits/precipitates can smother invertebrates inhibiting respiration. It also coats the river bed, filling the gaps between stones, thereby destroying the habitat of invertebrates and spawning grounds of fish. Low numbers of invertebrates mean there is less food available for predators such as fish, birds and bats. In addition to iron, ochreous discharges may contain other toxic metals that will also have a detrimental effect on the aquatic ecosystem.

Ochre pollution is often associated with old mines and spoil heaps. When mines are closed, water may flood the workings, discharging either to groundwater or at the surface to watercourses. The number of small old mines, localised tips and valleys infilled with waste from historic industrial processes in the area mean that currently there are numerous unquantified and unknown potential sources of ochre pollution. Examples of 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.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Investigate causes and impacts of discharges and pursue funding for remediation schemes as appropriate.	Environment Agency (D Forster)		R	●	●	●	●	●	●

ISSUE 14 ADVERSE IMPACT OF RUN-OFF FROM STAKE HILL INDUSTRIAL ESTATE ON WHIT BROOK

The invertebrate populations in Whit Brook downstream of Stake Hill Industrial Estate are severely impaired. Routine chemical sampling has revealed periodic organic contamination. Whit Brook also suffers from periodic aesthetic deterioration due to oil. There are a variety of businesses on the estate and the nature of trade can change as businesses leave and new ones move in. This can lead to various contamination of drainage due to accidents, negligence, poor storage and the mishandling of oil, chemicals and waste. In addition, the estate roads are heavily used by goods vehicles and the run-off can also be contaminated.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1.Identify pollution sources and pursue good site operation	Environment Agency (D Forster)	Site Operators and Owners	R	●	●	●	●	●	
2. Pursue installation of oil interceptors and surface water interceptors	Environment Agency (D Forster)	NWW Ltd.	U	●	●	●	●	●	

ISSUE 15 IMPACT OF M60 MOTORWAY CONSTRUCTION ON THE AQUATIC ENVIRONMENT

The extension of the M60 from Middleton to Ashton has presented the potential for pollution typical of a large construction site. Large areas of ground have been stripped of vegetation cover and the movement of machinery and excavation further disturbs the ground. These activities mean that in times of rainfall, solids are readily washed off the site and into nearby watercourses impacting on the aquatic ecosystem. Drainage systems and settlement facilities have been built to control this run-off, and chemical dosing to aid the settling of solids in lagoons has been employed. In addition, large quantities of fuel oil are stored with the risk of spillage and contamination. The Agency has been involved with the contractor in reducing the impact during construction and continues to monitor and inspect the site in order to ensure good site operation and seek further improvements if necessary.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Monitor the impact of construction of the M66 and pursue good site operation.	Environment Agency (D Forster)	Contractor	U	●	●				

ISSUE 16 THE PRESENCE OF BLUE-GREEN ALGAE IN HOLLINGWORTH LAKE CAUSING WATER QUALITY CONCERNS AND LOSS OF AMENITY.

Problems at Hollingworth Lake associated with nutrient enrichment have recently led to noticeable levels of blue-green algae. This results in a discolouration of the water, and toxins may be produced 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.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Continue to monitor water quality, when appropriate, for the presence of blue-green algae.	NWW Limited	Rochdale Metropolitan Borough Council, Environment Agency, Hollingworth Lake Sailing Club.	U	●	●	●	●	●	●
2. Install cages, holding straw, to alleviate the problem. (A)	Rochdale MBC, Rangers Service.		U	●	●				

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

ISSUE 17 LACK OF AWARENESS AND RESTRICTED ACCESS TO WATERCOURSES FOR RECREATIONAL ACTIVITIES

Access to stretches of watercourses is often complicated by walls, fences, culverts and residential or industrial property being built too close to the watercourse. This can impede recreational activities and lead to watercourses becoming neglected and undervalued. As well as looking unattractive, development to the bank top leaves little or no habitat for wildlife, whilst linear green space along watercourses can act as a buffer against damaging activities. Neglect of a watercourse can also result from lack of awareness.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Promote the creation of valley ways and continuous footpaths (eg. Beal Valley Way).	Beal RVI	Oldham MBC Rochdale MBC Groundwork Trusts, Environment Agency, North Manchester Regeneration Countryside Commission, Ramblers Association.	U	●	●	●	●	●	●
2. Investigate the potential for meeting the needs for signage and interpretation boards on and near to river crossings across public footpaths and help implement.	Environment Agency	RVI, Groundwork Trusts, Local Authorities, Riparian Owners,	U	●	●	●	●	●	●

ISSUE 18 CULVERTS CAUSING FLOOD RISK AND LOSS OF HABITAT

Culverts can prevent or impede the free flow of water along watercourses and reduce natural wildlife habitat. In urban areas culverts can cause flooding to property due to blockage or collapse, this inherent risk of flooding is managed by regular maintenance. The detection of pollution is also complicated when surface water systems discharge within culverts.

Any culverting of a watercourse requires the consent of the Agency. The Agency is generally opposed to the culverting of watercourses because of the adverse ecological flood defence and other effects likely to arise. 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.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1 Identify and gather information on all culverts suitable to be opened up when the opportunity arises*	Environment Agency (A R Lee)	Local Authorities, Developers, Riparian Owners.	R	●	●				
2 Reduce flows into culverts by attenuating flows, storing flood waters or providing alternative routes for flood flows.	Environment Agency (P Younge) Local Authorities, Developers, Riparian Owners		U(a)	●	●	●	●	●	
3. Identify and investigate the problem. Report on the technical, economic and sustainability of any potential solution.	Environment Agency (P Younge)		R		●	●			

*Action1 will be progressed through multi-functional projects and through River Rehabilitation schemes.

a = As and when opportunities arise. These will be reported in future reviews of this plan.

ISSUE 19 DERELICTION ADJACENT TO AND WITHIN THE WATERCOURSE IS LEADING TO INCREASED FLOOD RISK, LOSS OF BUILT HERITAGE AND DECREASE IN ENVIRONMENTAL QUALITY

The Environment Agency needs to ensure that riverside dereliction is appropriately dealt with to reduce flood risk, maintenance costs, the blight of derelict areas and secure environmental improvements in terms of landscape, recreation and ecological value without destroying those features that are of historical importance and contribute to the character of the area.

Achieving the above objectives is not a straightforward process as certain areas, like flood defence structures, do fall within the Agency's statutory remit, while others like derelict land do not.

There are large areas of derelict land that affect the quality of the river environment. Some specific examples include scrapyards in Beal Valley in Milnrow and an old industrial area at Heap Bridge near Heywood on the River Roch.

There are also many examples of old crumbling walls and culverts and other structures that are an eyesore as well as a potential flood hazard, in particular along the Rivers Irk and Medlock within Manchester (Knott Mill to Pin Mill Brow).

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Identify areas at risk. (Section 105)*	Environment Agency (P Younge)	Local Authorities, Developers.	U	●	●	●			
2.Investigate the known problems and report on the technical, economic and sustainability of any potential solution	Environment Agency (P Younge)	Riparian Owners Local Authorities, Developers,	R	●	●				

* 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.

Our Policy Document: Policy and Practice for the Protection of Flood Plains (March 1997) sets out the Agency's flood defence policies in relation to river and coastal floodplains and explains the reasoning behind them.

ISSUE 20 POOR ACCESS TO WATERCOURSES FOR MAINTENANCE WORKS

Poor access to stretches of watercourse can impede regular maintenance and emergency work activities. Access to watercourses in urban areas is often complicated by walls, fences and residential or industrial property. As well as looking unattractive, development to the bank top leaves little or no habitat space for wildlife. The provision of linear green spaces along watercourses can act as a buffer against damaging activities as well as providing a corridor for maintenance purposes.

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. These works may consist of access ramps or tracks.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Classify areas of need, and report on the technical, economic and ecological aspects of an identified solution. A catchment wide study should. consider a strategic approach to this issue.	Environment Agency (P Younge)	MAFF, Local Authorities, Developers, Riparian Owners.	R	●	●				
2.Providing, encouraging and enforcing access strips along watercourses through the development control process and land drainage consents*.	Environment Agency (P Younge)	Local Authorities, Developers, Riparian Owners.	R	●	●	●	●	●	●

Notes

The Environment Agency has powers under the land drainage bylaws to control works and development within 8m of the top of the bank of Main River.

ISSUE 21 SEDIMENT DEPOSITION CAUSING INCREASED FLOOD RISK

The removal of sediment from river channels is both expensive and ecologically damaging as long lengths of river can be affected. There are a number of ways to reduce sediment transfer along rivers and thereby minimise the need for damaging methods of material removal that should always be a last resort. An effective strategy for any watercourse, however, will require a combination of measures and a catchment wide approach.

The economic and ecological advantages of this approach have to be balanced against the regeneration of riverbeds and banks downstream, which can also have benefits to wildlife.

In moving from a 'reactive' to a 'managing' approach to sediment transfer and deposition, it is necessary to investigate and monitor catchments so that we can understand the relative extents of the problems, their distribution throughout a catchment and how it changes with time and flow.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Classify areas of need, and report on the technical, economic and ecological aspects of any potential solution. A catchment wide study should consider a strategic approach to this issue.	Environment Agency (P Younge)	Local Authorities, Developers, Riparian Owners	R	●	●	●			

ISSUE 22 PROPERTIES AT RISK OF FLOODING

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.

Our overall aim in relation to floodplains is to secure and where necessary restore their effectiveness for flood defence and environmental purposes. As such we will continue to oppose development within floodplains, and seek to ensure that policies relating to their protection are incorporated into Local Plans and Unitary Development Plans and are enforced.

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 river.

Our Policy Document: Policy and Practice for the Protection of Flood Plains (April 1997) sets out the Agency's flood defence policies in relation to river and coastal floodplains and explains the reasoning behind them.

The Agency recognises that irrespective of attempts to reduce the risk of flooding through either our policies or actions, flooding can still occur. Arrangements for warning residents within a formal Flood Warning Zone have been agreed in consultation with local authorities and emergency services. We aim to provide a two hour warning of the commencement of flooding wherever practicable, within flood warning zones.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Identify areas at risk. (Section 105)*	Environment Agency (P Younge)	Local Authorities, Developers.	U	●	●	●			
2.Investigate the known flooding problems and report on the technical, economic and sustainability of any potential solution, eg. River Beal at Milnrow, Longden End Brook at Rakewood	Environment Agency (P Younge)	Local Authorities, Developers, Riparian Owners.	R	●	●				

* 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.

NEW ISSUE 23 THE NEED TO BALANCE THE POTENTIAL IMPACTS OF THE RESTORATION OF THE ROCHDALE CANAL.

The Rochdale Canal Trust is a partnership that is promoting and coordinating the restoration of the Rochdale Canal; the partners Calderdale, Oldham and Rochdale local authorities. Although not members of the trust, Manchester City Council, The Rochdale Canal Company and the Inland Waterways Association retain an active interest in the restoration of the canal. The Trust has secured Millennium Commission and English partnership funding to support its proposals. A significant length of the proposed canal restoration falls within this LEAP area.

In its present condition, existing lengths of the canal are deemed to be of extremely high wildlife value and are designated as Sites of Biological Importance (SBIs). This designation is based on the ecology of the canal, which includes important plant life such as, water violet, slender pondweed, floating water plantain and the rare American pondweed. Some sections also represent important recreational sites for angling. There may also be a need to look at possible impacts on water quality and water resources. Any environmental impacts need to be balanced against the benefits for recreation, landscape and heritage.

The proposed restoration will take place in sections, as plans and finance are finalised with a completion date of December 2001. It is vitally important that as these proposals come through, the relevant bodies are consulted and environmental impacts are balanced with the benefits of the restoration.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Ensure that all relevant bodies are made aware of restoration proposals.	Rochdale Canal Trust.	Rochdale Canal Company.	U	●	●	●	●		
2. Formulate plans to balance impacts as and when schemes are proposed.	Rochdale Canal Trust.	English Nature, Rochdale Canal Company. GMEU, Environment Agency, Todmorden A.S., Castleton A.S., Stockport & District A.F., GMAU, Local Environment Groups.	U	●	●	●	●		

Firm proposals are not yet in place for any sections of the canal in this area. This means it is not possible to detail more specific actions at this time. These will be reported in future reviews of this plan.

NEW ISSUE 24 ADVERSE IMPACTS OF FLIES FROM WINCE BROOK

Residents local to Wince Brook in Middleton raised a problem they were having with large numbers of flies. A two year project was carried out between September 1994 and September 1996 which identified that the flies were chironomids (*Chironomus plumose*) which were coming from Wince Brook. Some people developed a rash on exposed anatomy, caused by the proteinaceous residues excreted by the flies, and the flies cause a nuisance in the summer when swarming.

The water quality in Wince Brook is classified as poor, and this together with the habitat of the watercourse allows large amounts of Chironomids to inhabit the brook.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
Undertake work on Oldham WwTW and unsatisfactory sewer overflows to improve water quality.	NWW Ltd		U(a)	●	●	●			
Investigate the impact of the removal of larva, for bait, by anglers.			U(b)	●	●				
Continue to monitor populations and their impact			U(b)	●	●				

a. Improvements to the water quality of Wince Brook will be largely addressed by North West Water's capital expenditure programme (AMP2). Under this there will be new treatment facilities provided at Oldham wastewater treatment works (WwTW) which will reduce the organic effluent load to Wince Brook. In addition to this, AMP2 expenditure will address a number of unsatisfactory sewer overflows also discharging to Wince Brook . This will also result in a reduction in organic and debris load to the watercourse. The improvement work to both Oldham WwTW and the sewer overflows is scheduled for completion by 31st March 2000. Initial research[1] has indicated that the resulting improvements to water quality may contribute to a reduction in chironomids in Wince Brook by supporting increased fish populations that feed on the larvae of the chironomids.

(1. Wince Brook Project Group - University of Salford 1996)

b. A team from Salford University carried out the original investigation into this problem. Further monitoring of the problem, and possible solutions, is likely to be carried out by members of this team on an individual basis.

Issue 6 outlines proposals to introduce fish to the watercourses of the area, as water quality improves, and this may help to alleviate this problem.

5.9 CONSERVING THE LAND

ISSUE 25 IMPACT OF CONTAMINATED LAND ON THE ENVIRONMENT

The Environment Agency operates in accordance with the provisions and duties of the Environment Act 1995. This involves the Agency and Local Authorities in the identification, regulation and remediation of contaminated land, particularly sites that pose a threat of serious harm or pollution. The Agency is currently concentrating on supporting existing projects in the area.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Undertake a scoping and ranking exercise of polluting "orphan" type contaminated land sites in the area	Environment Agency (S.Lever) Local Authorities		R	●					
2. Establish and/or continue partnerships with existing contaminated land remediation project groups to offer technical support	Environment Agency (S.Lever)	Local Authorities, Landowners	R	●	●	●			
3. Undertake detailed supporting investigations: a) Harpuhey reservoirs.	Environment Agency (D.Forster, S.Lever) Manchester City Council		U(i)	●	●				

Orphan Sites: Sites where, for financial purposes regarding the remediation of the site, the landowner cannot be readily identified, nor can legal controls be brought on the original polluter of the land.

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.

5.10 MANAGING WASTE

ISSUE 26 LACK OF AWARENESS AND IMPLEMENTATION OF THE GOVERNMENT'S STRATEGY FOR SUSTAINABLE WASTE MANAGEMENT (THE "WASTE HIERARCHY")

The Agency has a role not only in educating, and providing information and statistics, but also in forming local "on the ground" partnerships with appropriate interest groups so as to promote the waste hierarchy and ultimately deliver the UK's commitment to the Earth Summit agreement regarding waste.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Continue to promote the economic and environmental benefits of moving up the waste hierarchy to industry and the public	Environment Agency, Local Authorities, Groundwork, Business Links and clubs, Consultancies, Community and Voluntary Groups.		R (a)	●	●	●			
2. Extend information networks linking waste producers with secondary material users, recyclers and reprocessors.	Environment Agency.	Waste Management Industry, Construction and Manufacturing Industry, and other companies affected by producer responsibility obligations.	R	●	●	●			

(a) 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 programme will link businesses and public sector support agencies in identifying and tacking particular issues, especially integrated waste management and waste minimisation, as well as pollution prevention and ecological improvement.

ISSUE 27 THE ADVERSE ENVIRONMENTAL IMPACT OF UNAUTHORISED WASTE MANAGEMENT ACTIVITIES (INCLUDING FLYTIPPING).

The issue of illegal waste disposal activity within this area is significant. The uncontrolled treatment, storage and disposal of wastes poses a serious pollution risk, even from wastes which appear to be innocuous. Similarly, waste which is flytipped or even used for apparently useful projects may be contaminated and have a direct impact on the environment or human health, and as such needs to be carefully controlled.

Clear lines of communication and division of responsibility between the relevant regulatory bodies is essential because of the diverse nature of the problem. The Agency's Environment Protection Enforcement Team provides the initial contact with the public and external bodies on all unauthorised waste related activities. The Environment Agency is actively involved in partnerships with Local Authorities and other groups in an attempt to identify and control the problems associated particularly with flytipping.

As a priority, the Environment 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 the LEAP area.

Action 2 (below) will also support Issue 25 by preventing further contamination of land.

The Environment Agency Emergency Hotline is available for reporting serious incidents - 0800 807060.

Action	Responsibility		Total Cost (£K)	1998/9	1999/2000	2000/1	2001/2	2002/3	Future
	Lead	Other							
1. Set up and encourage local initiatives to discourage flytipping, and offer support to existing initiatives.	Environment Agency. (D Forster) Local Authorities	Landowners, Public groups, Waste Disposal Authorities.	R	●	●	●	●	●	
2. Identify and regularise unauthorised sites, priority being given to metal recycling sites.	Environment Agency. (D Forster)		R	●	●				

There is a Memorandum of Understanding between the Environment Agency and Local Authorities now in place. Its aim is to define formalize and strengthen working relationships on waste related illegal activities.

Recent shifts in the emphasis towards targeting enforcement have identified unaouthorised Metal Recycling facilities as posing a real pollution risk. A campaign to identify and regularise these activities has been commenced. Early indications, in this area, show a positive response from all parties involved.

5.11 REGULATING MAJOR INDUSTRIES

No specific issues

FUTURE REVIEW AND MONITORING

The Agency will be jointly responsible, with other identified organisations and individuals, for implementing this Action Plan. Progress will be monitored and reported annually by the Agency to all key partners and other interested parties.

The annual review will take the form of a short progress report and will:-

- Examine the need to update the LEAP in the light of changes in the area.
- Compare actual progress with planned progress, and explain the reason for any changes to the content or timing of individual actions.
- Report on other matters, including any legislative and classification scheme changes, affecting the LEAP.
- Roll forward the detailed activity plans.

APPENDIX 1: LIST OF RESPONDENTS

Andrew Short	Environment & Development, Manchester City Council
Andy Screen	Towpath Action Group
Arthur F Metcalfe	Ramsbottom Angling Association
D Lappin	Middleton Environment Group
D Frith	British Waterway
Dave Richards	Hollins Conservation Group
Dave Bentley	North East Greater Manchester Amphibian Group
David Marshall	North West Water Ltd
Eleanor Pickles	Lancashire County Council
Graham Hughes	Oldham Metropolitan Borough
Gwyn Parry	British Waterways
Ian Purdie	Nadin Valley Conservation Group
John Walton	Ramblers Association, Oldham Group
Kate Newton	Groundwork Rossendale
Keith Parry	Littleborough Action Group
Miss J L Miller	City of Salford
Mr R J Warlow	MAFF
Mr J P Ashton	Rochdale Civic Society
Mr J Elliman	Borough of Rossendale
Mr K F Child	Greater Manchester Transport Action Group
Mr Francis Comyn	Rochdale Metropolitan Borough Council
Mr J M Walton	Ramblers Association (Oldham)
Mrs J Cuff	Countryside Officer, Ramblers Association
Neil Edwards	Inland Waterways Association
Patrick J Lindley	RSPB
Peter Foster	Sustrans
Richard Darlington	EMMAUS in Greater Manchester
Robert Williams	FRCA
Selina HillEnglish Nature	
Simon Hill	Ove Arup & Partners
Suzanne Waymont	Greater Manchester Ecology Unit
Veronica Pitts	NFU

Beal Valley Rescue/Rochdale & District Friends of the Earth/Rochdale River Watch

Adam Barlow
Andrew Oldham
C McLeod
Christopher Trimble
George Czernuszka
Graham Griffiths
Micheal Jones
Miss Warren
Mr Michael D White
Mr T R Moore
Mr D Stewart
Mr B Luckham
Ms S H Martin
Natalie Loynd
Steven Malpas
V M Holt

APPENDIX 2: NOTES ON CONSULTATION LETTERS

Consultee	Comments	Response
R S Williams FRCA	Welcomes receiving advanced copy, and supports the process, but full comments will be sent via London.	Support welcomed
Peter Foster Sustrans	Information on the National Cycle Network for Britain, and particularly on a section which runs through the LEAP area.	Appreciate the information sent.
Keith Parry Littleborough Action Group	The document is a useful supply of information. Questions raised about Hollingworth Lake and a local planning application.	Issue 10 should address water quality on Hollingworth Lake. The Agency will have responded to the planning application with comments to protect the environment.
Miss J L Miller City of Salford	Comments relating to the Air Quality section. Supplied the Greater Manchester Air Quality Management Strategy.	Appreciate the information supplied. Agreement with some comments, some referred to the Croal/Irwell area and others were addressed in the consultation report.
Mr J Elliman Borough of Rossendale	Supplied Rossendale Quarry Project and Upper Irwell Partnership. Also commented that the Agency is not a partner in the SCOSPA Life Programme.	Appreciate the information supplied and note the comment.
R J Warlow MAFF	Note sent on roles and responsibilities of MAFF. Also information on the new status of ADAS.	Appreciate the information supplied.
Suzanne Waymont GMEU	Comments on issues, 12, 17, 24 and on the supporting text. Also suggested new issues on the restoration of the Rochdale Canal and the spreading of shredded paper.	Points noted on issue and amendments will be made. The supporting text will not be reproduced, but corrections are noted. The new issue on the Rochdale Canal is being considered. Spreading of shredded paper has to be deemed as "beneficial" and therefore impacts should be advantageous, however, the concern is noted and has been raised by others.
Francis Comyn Rochdale MBC	Strong support for the LEAP. Extensive comments on most of the issues, as well as comments on the format of the document and supporting text.	All points on the issues are gratefully received and will be noted in the creation of the action plan. As previously stated the supporting text will not be reproduced, but comments are noted. The structure of the document and the LEAP process follows a national format, however, it is an evolving process and changes will be considered.

Consultee	Comments	Response
Andrew Short Manchester City Council	Comments on many of the issues. Stress was made of the overlap between many of the issues and the work of the council. Concern over the availability of resources to implement the plan.	It is noted that there are many links which exist and it is an important part of the LEAP process which develops these for the benefit of the environment. Resources are indeed a key factor and they may well limit the progression of some parts of the plan.
Eleanor Pickles Lancashire County Council	Support for the plan and for the fact that planning authorities have been consulted at an early stage. Specific comments on many issues and on the supporting text, in areas where our responsibilities overlap.	Appreciation of the support and recognition of the fact that consultation is very important. Comments on the issues are noted and some new information has to be considered in the creation of the action plan.
David Marshall NWW Ltd	Concern that some of the information concerning NWW Ltd may be incorrect. Updated figures on the reduction of leakage. Specific comments on several issues.	Earlier consultation has been negotiated with NWW Ltd to ensure information concerning them is correct in future. Comments on the issues have been addressed and will be considered during the creation of the action plan.
Patrick J Lindley RSPB	Compliments on the production of the LEAP and the issues it contains, and for acknowledging the importance of riparian features and sites of wildlife interest. Comprehensive comments on issues and text.	We appreciate the compliments and support and will consider all the comments made. It is envisaged that they will change some of the actions.
Ian Purdie Naden Valley Conservation Group	Endorsement of our aims and support.	Comments appreciated
Veronica Pitts NFU	Stressed the importance of agriculture in in maintaining green areas. Comments on rights of way and agricultural pollution.	Comments welcomely received and noted for the future.
Simon Hill Ove Arup & Partners	Interesting comments on the LEAP and the LEAP process.	Noted and considered for the future production of LEAPs.
Selina Hill English Nature	Comments on issue 4, 12 and 23, and comments on the conservation section.	All points noted for the production of the action plan.
Andy Screen Towpath Action Group	Many points about the canals in the area, their management and interaction with each other and other watercourses. Comments relating to issues 18 and 23.	Interesting points which are new to the Agency, all noted for this plan and future plans.
Lisa Hoyland Tameside Metropolitan Borough	General comments and support and emphasis on the cross over of responsibilities.	Comments appreciated.

Consultee	Comments	Response
Patrick Lindley RSPB	General comments on biodiversity and sustainability and the importance of remaining natural areas as well as the LEAP process and structure. Specific in-depth comments on issues 1, 2, 4, 11, 12, 13 and 15.	Comments appreciated, especially for the attention paid to the issues. Consideration will be given to all points raised.
Neil Edwards The Inland Waterways Association	Acknowledgement of the inclusion of canals. Comments on issues 1-9, 12, 14, 17, 18, 20 and 23, with specific reference to their impact on canals.	Points are noted for the production of the action plan.
Andrew Short Manchester City Council	Support for the LEAP and brief comments on issues 1, 2, 3, 11, 13, 14, 18, 19, 20, 22, 23 and 24. Points made on the links with the council, and the resource intensiveness of the plan.	Points gratefully received.
Gwyn Parry British Waterways	Brief comment on BW's interest in the plan.	
B Haigh British Horse Society	Comments on our omissions concerning bridle paths in the area.	Comments accepted and in future we will endeavour to include the relevant information.
Richard Darlington EMMAUS	Support and offers of assistance and venue.	Comments appreciated.
Beal Valley Rescue/Rochdale & District Friends of the Earth/Rochdale & District Riverwatch		Comments received late but will be noted.

APPENDIX 3: WORKSHOP ATTENDANCE LIST

Amanda Stockley	Bury MBC
Andrew H Hardwick	Rochdale Canal Company
Anna Jordan	Rochdale Countryside Warden Service
Anne Symonds	North West Water Ltd.
Assistant Divisional Officer Haydens	
B Pooley	Oldham MBC
Barbara Haigh	British Horse Society
Bill Mudway	Oldham MBC
Bill Edwards	Oldham Environment Forum
Bruce Longside	Oldham Museum
Caroline Downey	Oldham MBC
Chris Wilkinson	Bury MBC
Chris Cleaver	British Canoe Union
Chris Flintoff	Rochdale MBC
Cliff Jackson	Oldham MBC
D McMullin	Groundwork Rochdale, Oldham and Tameside
Dave Clegg	Manchester Park Wardens Service
Dave M Williams	Ramblers Association (Rochdale)
David Dutton	Bury MBC
Derek Elsey	Friends of Alkington Woods
Derek Brown	Milnrow and Newhey Forum
Doug Hayes	Greater Manchester Waste Ltd
Elaine Wood	Oldham Environment Forum
Eleanor Pickles	Lancashire County Council
Faisal Butt	Oldham Museum
Francis Comyn	Rochdale MBC
George Czernuszka	Oldham Environment Forum
Graham Schoon	Bury MBC
Graham Wells	North West Water Ltd
Graham Farrington	Terry Adams Ltd
Gwen White	Mersey Basin Trust
J D Lappin	Middleton Environment Group
Jane Downall	
Jim Stidworthy	Tame Valley and Medlock Association
John Harrison	The Barble Society
John Dinsdale	Oldham MBC
John McIvor	Rochdale MBC
John Barnes	Terry Adams Ltd
John Harrison	
John Elliman	Rossendale Council
Les Beardswood	Bury MBC
Lisa Hayland	Tameside MBC
Malcolm Giles	Rochdale MBC
Malcolm Dunkley	Oldham MBC
Martin Riley	Littleborough Community
Matt Whitfield	Greater Manchester Waste Ltd
Michael Payne	NWRFAC
Mike Crow	North West Water Ltd
Mr A Choudary	Middleton Environmental Group
Mr S Nugent	Middleton Environmental Group
Mr J Corscadden	Greater Manchester Waste Ltd
Mr W Allen	
Mr W Jenkins	Whitworth Town Council
Mr C L Chinn	Rochdale Civic Society
Mr J Fletcher	The Inland Waterways Association
Mrs C Lappin	Middleton Environment Group

Mrs Frances Whitteley	Beal Valley Rescue
Mrs J Cuff	Manchester Ramblers Association
Mrs K Winterbottom	
Ms Eleanor Dale	Rochdale Countryside Warden Service
Neil Simpson	Cycling Project for the North West
Paul Guy	Rochdale MBC
Peter Gilligan	Friends of Alkington Woods
Peter Daley	NWW Ltd
R Platt	Akzo
Rachel Blair	
Rachel Carefoot	Oldham MBC
S Fitton	Boarshaw Tenants and Residents
Sarah Ellison	Mersey Basin Campaign
Simon Jones	Royden Polythene
Simon Hill	ARUP Environmental
Station Officer Bailey	
Stephen Penny	Greater Manchester Waste Ltd
Steve Smith	Oldham MBC
Steve Connolly	NW Region IWA
Steve Kemp	North West Water Ltd
Sue Southward	Rochdale MBC
Suzanne Waymont	Greater Manchester Ecology Unit

APPENDIX 4: GLOSSARY

AQUIFER

A layer of underground porous rock which contains water and allows water to flow through it.

CHANNEL

A cutting in land along which a river 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

A man-made structure, for example a pipe, carrying a watercourse underground.

FAUNA

Animal life.

FLORA

Plant life

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.

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.

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

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

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.

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.

APPENDIX 5 – ABBREVIATIONS

AMP	-	Asset Management Plan
CPRE	-	Campaign for the Protection of Rural England
CSO	-	Combined Sewer Overflow
CSW	-	Contaminated Surface Water
EN	-	English Nature
EU	-	European Union
FWAG	-	Farming And Wildlife Advisory Group
LBAPs	-	Local Biodiversity Action Plans
MAFF	-	Ministry of Agriculture Fisheries and Food
MBC	-	Metropolitan Borough Council
NWW Ltd	-	North West Water Limited
RE	-	River Ecosystem
RQO	-	River Quality Objective
RSPB	-	Royal Society for the Protection of Birds
SBI	-	Site of Biological Importance
WwTW	-	Wastewater Treatment Works

APPENDIX 6 - ASSET MANAGEMENT PLAN

Water Service Company capital expenditure is negotiated in talks between the Agency, the Office of Water Services, the Department of the Environment and the Water Services Association. The agreed programme of work is referred to as an Asset Management Plan (AMP). The Agency is involved in targeting investment towards environmental improvements, including water quality improvements. Priority for these is currently given to schemes necessary to meet or maintain existing EC and domestic statutory obligations such as the Urban Wastewater Treatment and the Freshwater Fish Directives. Non-statutory schemes are also considered if they are necessary to maintain or improve river water quality and produce positive cost-benefit arguments.

Under AMP2, which governs the expenditure for the period 1995 to 2000, the following improvement programmes within the Roch, Irk, Medlock area has been, or will be, undertaken:

1. Oldham WwTW. Improvements to contribute to the achievement of a short-term River Ecosystem (RE) River Quality Objective (RQO) of RE4 in Wince Brook and the River Irk.

2. Royton WwTW. Improvements to contribute to the consistent achievement of a short-term RE RQO of RE4 in the River Irk.

3. Failsworth WwTW. Improvements to contribute to the achievement of a short-term RE RQO of RE4 in the River Medlock.

4. Unsatisfactory sewer overflows discharging to the lower Medlock between Failsworth and its confluence with the River Irwell. Improvements to up to 30 overflows.

5. Unsatisfactory sewer overflows discharging to Lumb Brook. Currently programmed improvements to 3 overflows.

6. Unsatisfactory sewer overflow at St John's Street, Lees to the upper River Medlock.

7. Middleton Main Outfall Sewer overflow discharging to the River Irk at Rhodes.

8. Unsatisfactory sewer overflows discharging to Wince Brook. Improvements currently programmed for 7 unsatisfactory sewer overflows including the inlet overflow at Oldham WwTW.

9. Unsatisfactory sewer overflows at Suffolk Street and Alford Street, Hollinwood discharging to Moston Brook.

10. Unsatisfactory sewer overflows discharging to Luzley Brook. 2 overflows have already been abandoned and 1 improved.

11. Unsatisfactory sewer overflows to the upper River Irk at Royton. 3 overflows have been abandoned and improvements are programmed for the inlet overflow for Royton WwTW.

12. Unsatisfactory sewer overflow discharging to Parr Brook, Whitefield.

13. Unsatisfactory sewer overflow discharging to Hodge Clough at Sholver. Improvements have been completed.

AMP3 will detail expenditure planned for improvements that will be undertaken during the period 2000 to 2010. Initial prioritisation of schemes and cost-benefit analysis is already being undertaken.

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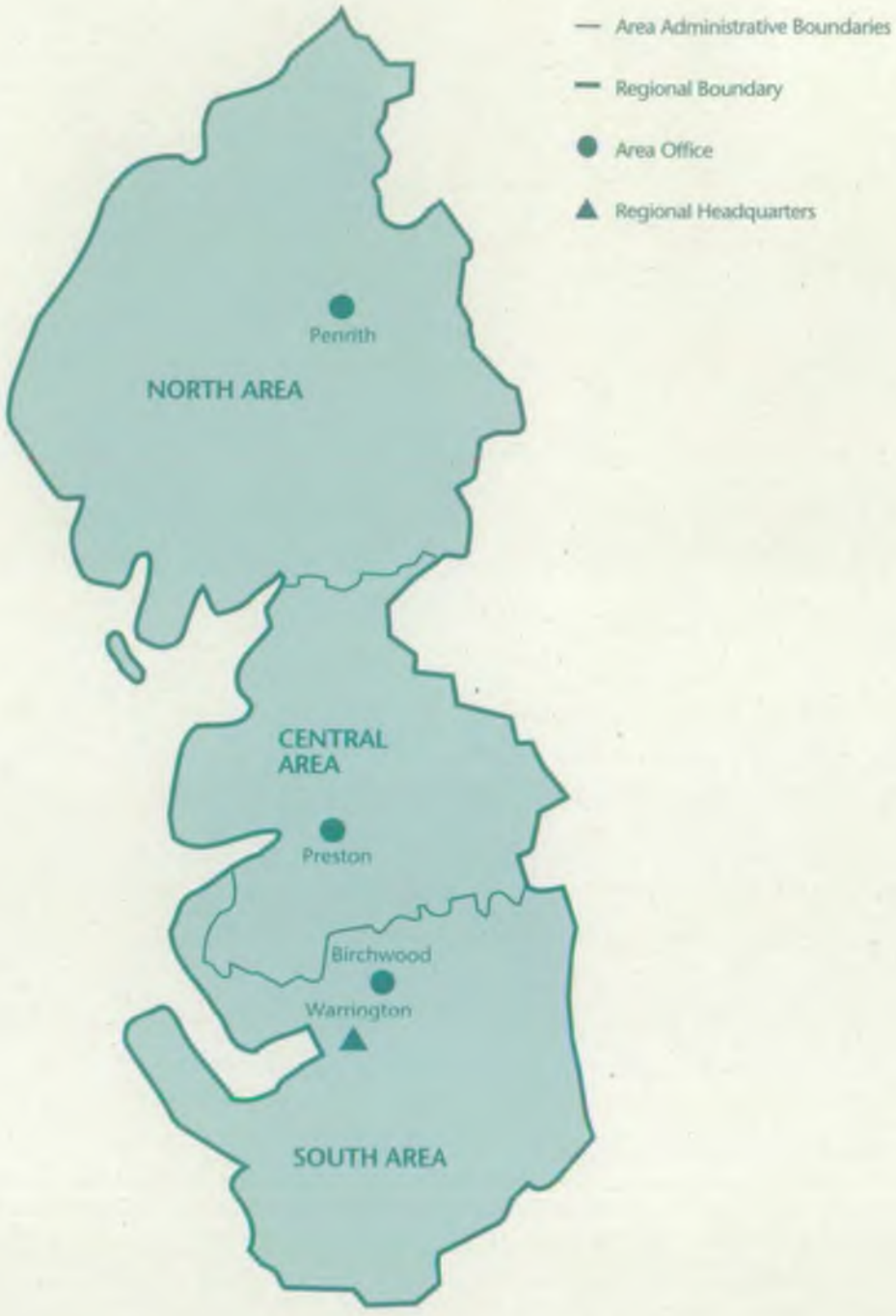

For general enquiries please call your local Environment Agency office. If you are unsure who to contact, or which is your local office, please call our general enquiry line.

ENVIRONMENT AGENCY GENERAL ENQUIRY LINE
0645 333 111

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

ENVIRONMENT AGENCY EMERGENCY HOTLINE
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ENVIRONMENT AGENCY

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