



local environment agency plan

LOWER MERSEY ACTION PLAN OCTOBER 1997



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ENVIRONMENT
AGENCY

Key Details

General

Plan Area 680sq km

Topography

Highest point above sea level 170m
Lowest point Sea level

Conservation

Total number of Sites of Special Scientific Interest 20
Designated sites of nature conservation value 138

Water Resources

Long term (1986-1994) annual rainfall Gowy Area 792mm
" " " " " " " " Prescott Area 880mm

Flood Defence

Length of Main River 284.5km

Waste Management

Licensed Waste management operations in the area 174

Integrated Pollution Control

Sites subject to the provisions of Integrated
Pollution Control 58

Contacting the Environment Agency

The South Area Office is located at:

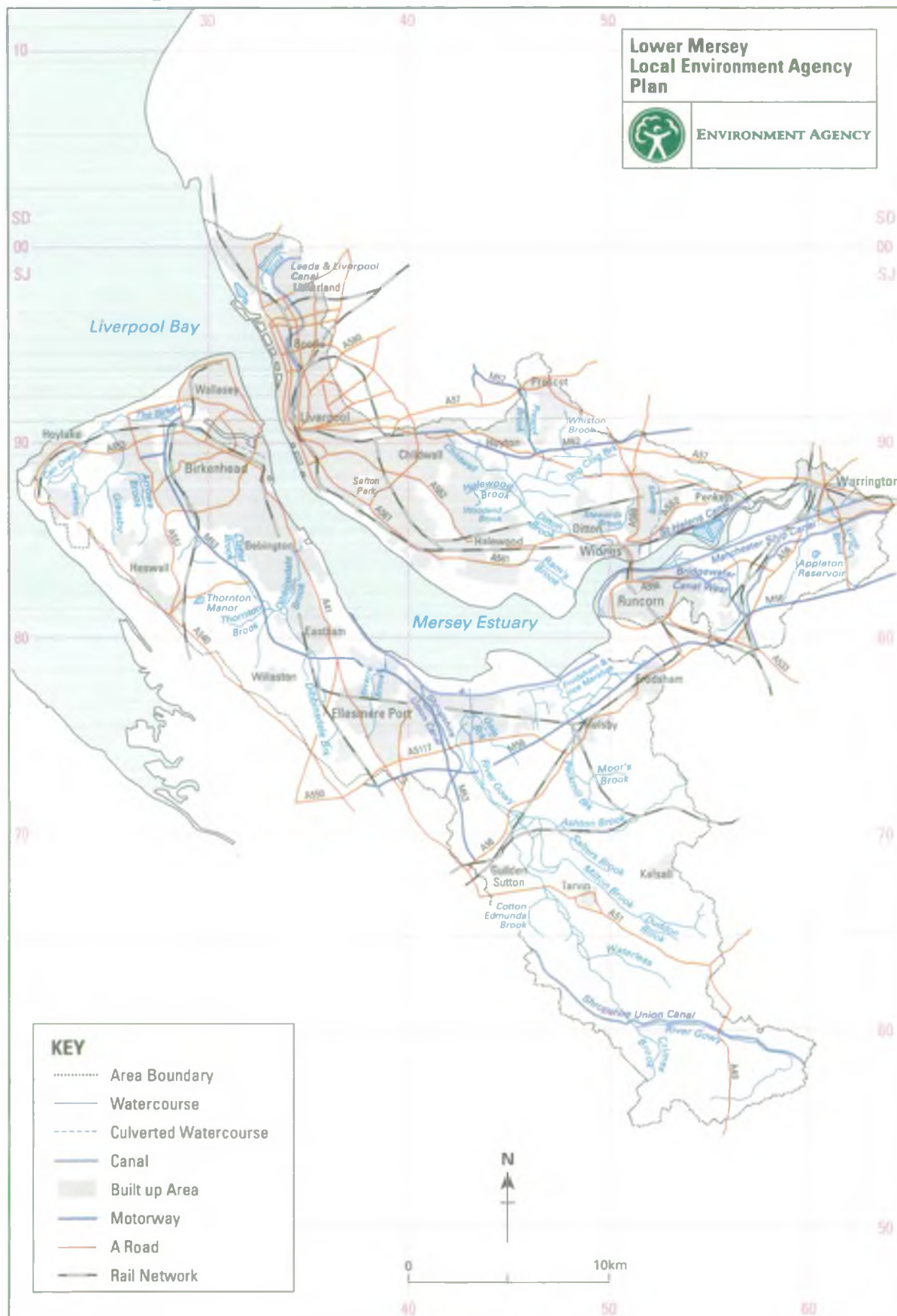
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Environment Planner
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Map of the Area



The Environment Agency's Vision for the Lower Mersey 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.

The Environment Agency will work in partnership with area users to realise the full environmental potential of the Lower Mersey 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 Agency will continue to maintain the close working relationship with the Mersey Basin Campaign, to pursue this environmental initiative.

The vision for the area is centred around an environmental quality which will have improved to a level that will support a healthy aquatic environment, and 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. Controlled 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. Sea and tidal (coastal)

defences will be maintained through a co-ordinated strategy that ensures adequate flood protection whilst maintaining and improving the ecological diversity of the area.

Wherever physically possible culverts will be opened to remove physical barriers, for wildlife, from the watercourses. New development will be regulated by Agency controls, and through liaison with local planning authorities, to provide open river corridors with development sited to reduce the risk of flooding.

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

The watercourses will support wide recreational and amenity uses, such as, angling, water sports and walking with continuous green corridors. The ecological value of the area will improve, landscape quality will be conserved and restored and cultural heritage, including archaeological sites, will be protected.

In achieving this vision of the Lower Mersey area the Agency will continue to advise and work in partnership with organisations and enforce, where necessary, the relevant regulations.



Foreword

This Action Plan, for the Lower Mersey LEAP, outlines the work and timetables that have been identified to address the environmental issues raised. It allows us to plan for the improvement of the environment, by working together with others and taking into consideration the views of local people, groups and industries. The issues were identified in the consultation report and now, having taken account of all the comments we received during the consultation period, we can plan to address them.

We thank you for your response to our consultation and subsequent discussions in the planning of work. Although this is an Action Plan, it is not final and we welcome further communication on the issues in this document and any further issues that may arise. The Annual Reviews of this plan will document work that has taken place and is planned, and will allow for the advancement and addition of issues.

George Ager
Area Manager
South

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1 Introduction

This Local Environment Agency Plan covers most of the land banking onto the estuary, including Liverpool, Widnes, South Warrington, Runcorn, Ellesmere Port, a large area of the Wirral and the catchment area of the Gow. It does not include the estuary, which will be covered by the Mersey Strategy Action Programme.

The Action Plan for the Lower Mersey Local Environment Agency Plan is the second stage in the plan process.

1.1 The Environment Agency

The Environment Agency is a new body. It 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 ability 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. These LEAPs will also allow the Agency to deploy its resources to best effect and optimise benefit for the local environment.

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 country'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 (not in this area).
- 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 which 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 (not in this area);
- use of inland and coastal waters for recreation.

1.2 Biodiversity

Biodiversity

Biodiversity is simply a new term meaning the "variety of life".

In the pursuance of the Government's commitment to biodiversity conservation, the Agency will be developing targets for species and habitats of conservation concern. These will relate to the targets for key wetland species and habitats as identified by UK Biodiversity Action Plan, emphasising the contribution that the North West Region can make to the national targets.



Bullhead

1.3 The LEAP Process

A '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. The outcome of the process is a local agenda of integrated action for environmental improvement in order to optimise benefit for the local environment.

The production of Local Environment Agency Plans (LEAPs) within the Agency involves 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 1997. It included a vision, details of the area and the issues and options we have identified. 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 we have raised.

Consultation

The period of consultation lasted for three months, and finished on the 9th July 1997.

Action Plan

This document represents the next stage after the Consultation Report. It has regarded the comments received during the consultation process. Once produced, the Action Plan will form a basis for future actions within the area for the next five years and will be a public document. It details the nature of actions required, the cost, timescale 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 which will be publicly available.

The review document will comprise the following information:

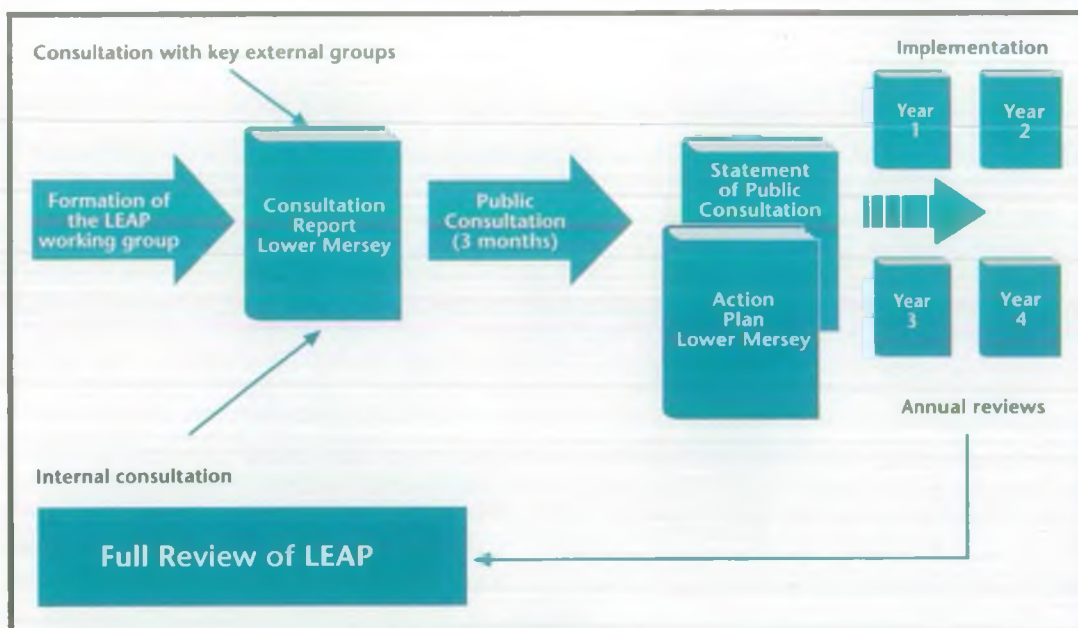
- A detailed comparison of actual progress against planned progress.
- Identification of additional actions to maintain progress in the light of changes in the area.
- Consideration of the need to update the LEAP.

Update requirements will obviously depend on the particular needs of the area. However, updates to the LEAP will normally be undertaken every five years. Key organisations and individuals forwarding comments will receive an annual review paper to update them with the action plan progress.

Constraints

The completed plan will inevitably be subject to some limitations.

To ensure improvements and overcome the problems in the area, actions, which in many cases are the responsibility of other organisations and individuals, will be necessary. The Agency does not have the powers to make the necessary changes, but will use its influence to improve the state of the area wherever possible.



2 Review of the Consultation Process

2.1 Summary of Public Consultation

The Environment Agency undertook consultation with interested bodies and the general public, and this section reviews the consultation process and briefly summarises the comments and our actions in response.

The Consultation Report was launched in April 1997, at a public launch in Port Sunlight. A wide variety of parties who have an interest in the Lower Mersey area were invited to attend the launch. The launch of the Consultation Report was also publicised in the local press.

Many copies of the Consultation Report were distributed following the launch and subsequent requests. Also, 5000 summary documents were printed and these were sent out to libraries, council offices and other public premises, along with posters, to publicise the Consultation Report. A display board was circulated to the main libraries in the area and was displayed at various shows, during the consultation period.

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.

2.2 Summary of Comments

We received 72 responses to the consultation process. The people and organisations are listed in appendix 1. All letters were acknowledged and follow up questions answered where appropriate.

In general, the comments received were supportive of the concept of LEAPs and the Lower Mersey LEAP in particular. Useful comments on the issues and options raised were received and these have been considered in the production of this Action Plan. Errors and omissions were also highlighted. Although we welcome these corrections, it should be pointed out that the supporting text in the Consultation Reports is not going to be reproduced.

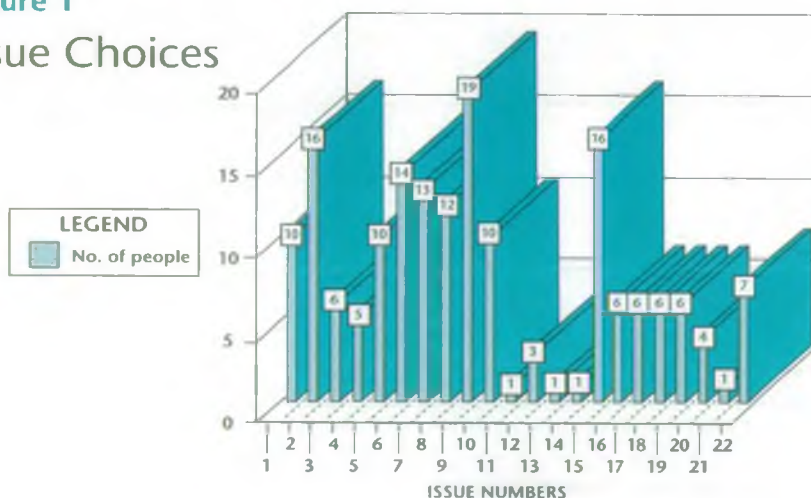
There was a large amount of support for the Issues and Options we had raised and many were happy that we are addressing their concerns.

The summary document included a questionnaire in which people were asked to chose their five most important issues. Figure 1 show the results of this question. The issue chosen the most was issue nine which looked at addressing biodiversity problems.

2.3 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.

Figure 1
Issue Choices



3 Overview of the Area

3.1 Brief Description of the Area Uses and Resources

The Lower Mersey Local Environment Agency Plan covers an area of 680 km² and includes most of the land banking onto the Mersey Estuary, and the catchment areas of the local tributaries to the estuary. It does not cover the estuary itself and it is envisaged that the Agency will take issues for the estuary, out of the Mersey Estuary Management Plan. The area includes Liverpool, Widnes, South Warrington, Runcorn, Ellesmere Port and a large area of the Wirral. The area is predominantly low lying and flat. Land use in the area is made up predominantly of urban development or agriculture, with areas of wetland, marsh and woodland. Agricultural land use is made up of dairy farming, especially on the Gowy catchment, mixed sheep, cattle and cropping, and also horticulture.

The Mersey area is part of one of the world's first industrial regions. It is still one of the country's leading manufacturing locations but over the last few decades it has experienced steady declines relative to UK and European averages, in output, employment, incomes and population. There is a legacy of industrial dereliction, pollution and outdated surface and underground infrastructure which has had a damaging effect on a significant part of the area. The area contains parts of Merseyside which because of the problems of decline was accorded Objective 1 status for European Union Structural Funds. The area also contains parts of North West Cheshire.

The area surrounds the estuary. The middle estuary is an important conservation site, especially for wildfowl. Some of the activities in the LEAP area have direct impacts on this site. There are some small areas of conservation importance, although they are predominantly found in the Cheshire area.

Flood Defence

The Agency has a duty to exercise a general supervision over all matters relating to Flood Defence.

The principle watercourses in the area have a formal designation of Main River

and the Agency has powers to regulate and carry out works on these watercourses.

There are 284 km of Main River within this area, flowing through residential and industrial areas and land used for agriculture.

Although the responsibility for water-course maintenance rests with the riparian (river bank) owner, the Agency has discretionary operational powers to carry out, where required, maintenance and improvement works on Main Rivers. Similar discretionary operational powers on ordinary watercourses (not designated Main River) belong mainly with the local authorities, the Agency having supervisory and limited default powers.

We operate a system of Flood Warning Standards of Service to ensure that timely warnings are issued, to the right people, at the right time. It is our aim to provide a two-hour warning of the commencement of flooding wherever practicable. By definition lengths of river, or reaches, with a population concentration are treated as priority.

Flood warnings, within the LEAP area, are disseminated to the general public via Radio Merseyside, the Environment Agency's Floodcall line, AA Roadwatch, the Met. Office, and page 105 of Teletext. Warnings are also passed to the relevant Local Authorities, Police, Utilities and the Coastguard by the Environment Agency North West Regional Office at Warrington.



The Ferry Tavern

The following are key flood defence activities within the catchment area:

- Regular planned inspections of Main River channels and structures are carried out in order to programme any necessary maintenance works. These safeguard the existing standards of flood protection, particularly in the heavily urbanized areas.
- In order to reduce the risk of flooding regular clearing of debris from channels, culverts, bridges and debris screens takes place. Riparian owners are persuaded to accept their responsibilities for many dilapidated riverside structures and the tipping of rubbish in watercourses. Where appropriate, legal action is taken to clear debris.
- Information and advice is provided to give advanced warnings of likely flooding in known flood risk areas. Forecasts of high river levels are based on rainfall and river level information collected from outstations by the Regional Telemetry System.
- Information and advice is given to local authorities to prevent the development of sites, either, affecting or within, flood risk areas.

Water Quality

The River Gowy can be divided into two parts. South of the A5117 the area is predominantly rural in nature and the main agricultural activity is dairy farming. The water quality is generally fair, although there is potential for improvement. The main pollution sources are sewage discharges and farming practices. North of the A5117 to the banks of the Mersey are industrial sites including the Shell Stanlow complex. The watercourses including the Gowy and its tributaries Stanney Mill Brook, Thornton Brook, Gale Brook and the Manchester Ship Canal are of poor water quality.

Rivacre Brook starts near Capenhurst and receives the discharge from the waste water treatment works. The water quality is poor in the upper

reaches but improves slightly before the stream joins the Mersey. In the past there have been some problems with farm drainage causing intermittent pollution. Other sources of pollution in the rural areas include septic tank discharges. In the urban areas contaminated surface water discharges, combined storm overflows and urban run-off, have an impact on water quality.

The water quality of the River Birket and its tributaries is poor. The area is predominantly urban in character and the sources of pollution are from urban run-off, contaminated surface drainage, and combined sewer overflows. The River enters the Great Culvert where it practically becomes a sewer receiving a number of discharges. At the end of the Culvert is the Birkenhead screening plant, where river and sewage go before entering the Mersey.

Dibbinsdale Brook, sometimes called the River Dibbin, starts with fair water quality but becomes progressively worse before discharging to the Mersey at Port Sunlight. Septic tank discharges, combined sewer overflows, contaminated surface water discharges and urban run-off all have an impact on water quality.

On the north bank the main watercourse is Ditton Brook, which starts as Prescott Brook in the heavily built up area of Prescott. Below the confluence with Netherley Brook, where the stream becomes canalised, it is called Ditton Brook. The watercourses that make up the catchment have very poor water quality as do Stewards Brook and Bowers Brook.

There are a number of canals in the LEAP area, the water quality of these vary considerably. The Bridgewater, Shropshire Union and Manchester Ship Canal are to the south of the Mersey Estuary. Both the Bridgewater and Shropshire Union Canals have a high amenity value. The Manchester Ship Canal is of very poor water quality and receives the discharges from industrial plants and wastewater treatment works, both within this area and upstream in areas covered by other LEAPs and Catchment Management Plans. On the north

bank there is a small section of the St. Helens Canal (Sankey/Glaze LEAP) and the Leeds Liverpool Canal from Litherland to the docks. The stretches of canal in this LEAP are designated fisheries. Pollution problems occur as a result of urban run-off and accidental spillages, also the upstream water quality, covered in other Agency plans (Douglas and Alt Catchment management plans), have an impact.

Air Quality

The Environment Agency has the responsibility for regulating those industries with the greatest potential to pollute air, water and land. Local authorities regulate the smaller industries in respect of emissions to air. The Department of Transport is responsible for regulating the emissions from road traffic. The Environment Act 1995 provides a framework within which local authorities have responsibility for the overall management of local air quality.

There are some 58 sites on the Mersey Estuary subject to the provisions of integrated pollution control (IPC). The IPC sites are grouped in the industrial belts around Warrington, Runcorn, Ellesmere Port, the Wirral and the Greater Liverpool area.



Fiddler's Ferry Power Station

The area contains the second largest UK refinery, several fuel additive plants - including the country's sole supplier of organo-lead for petrol, major chlorine production, a wide variety of chemical processes, a large coal-fired power station and a hazardous waste incinerator.

The releases to atmosphere from these processes that have significant impact on local air quality are sulphur dioxide, oxides of nitrogen, volatile organic compounds and particulate matter.

Road traffic and domestic fires provide low-level sources of these four major pollutants although fuel/vehicle legislation and the Clean Air Acts have made significant reductions to these.

Water Resources

There is a need to control the use of water within the area, to create a balanced and sustainable resource. The Agency achieves this by licensing abstractions from and discharges to the river system and through its "Policy and Practice for the Protection of Groundwater".

The management of water resources requires information on their status. Daily rainfall is measured using a network of voluntary observers; supporting this network are a number of automatic telemetered raingauges which record at sub-daily intervals from which rainfall intensity can be determined. River levels and flows are measured at various points throughout the plan area. In addition, specific projects are supported by the installation of temporary stations and spot measurements. Groundwater levels are routinely monitored at 78 sites throughout the plan area.

Waste Management

The disposal 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 Waste Management Licences include landfill sites, transfer stations, metal recycling facilities, and waste storage and treatment facilities.

There are 174 currently licensed waste management operations within this area. Of the landfill sites, a few are major facilities accepting large quantities of household, commercial and industrial waste (eg: Arpley, Bromborough Dock and Gowy), whilst others are licensed to accept a more

restricted range of waste types, most commonly inert building and construction industry wastes. The total quantity of waste deposited at all licensed landfills in the area during the year 1995 - 96 was 2.65 million tonnes.



Landfill Preparation

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, particularly in West Cheshire. The quantities of waste involved can be considerable.

The presence of major industry in the area gives rise to significant production of Special Waste, and wastes are also imported and exported through Liverpool.

Carriers of waste are required to be registered with the Agency, but in common with many other areas, there is a significant problem of illegal waste disposal activity, resulting in 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 which operated before licensing control was introduced.

A waste minimisation demonstrator project has been running in Merseyside since 1995. The project is being managed by Merseyside Innovation Centre and involves a range of different companies. Over 240 waste reduction opportunities have been identified so far, with a potential value of more than £10 million. 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 river habitat available to fish throughout most of the area is generally poor consisting of narrow silty channels with low gradients and little flow. The water quality of a large number of the watercourses is also generally unsuitable for supporting healthy fish populations. Only marginal species have been recorded in the Wirral Brooks and the Ditton Brook system. The River Gowy is slightly better with a good but scattered coarse fish population.

There are numerous stillwaters in the area, ranging from the park lakes of Liverpool and the Wirral to the many small farm ponds found in Cheshire. These waters provide habitat for a variety of coarse fish.

Conservation

Conservation can be defined as the protection and management of natural and man-made features of special interest, so that this inheritance can be valued and made available for the benefit of future as well as present generations. It is central to the Agency's activities and a tangible measure of its aim of a continuing improvement of the environment in England and Wales. There are 9 Sites of Special Scientific Interest (SSSIs) in the area.

There are 138 sites that have been classified for their nature conservation value. These are known as Sites of Biological Importance (SBIs) in Cheshire and Wirral, Sites of Nature Conservation Value (SNCVs) in

Liverpool, Sites of Community Wildlife Interest (CWIs) in St Helens, Knowsley and Sefton. These sites are recognised as being of importance for nature conservation in a county, district or local context for the habitats, plants or animal species they support.

There are several areas of high local conservation interest in the area including the Gowy meadows and ditch system, Frodsham/Helsby Marshes, the Ince Marshes, Pickering Pastures Local Nature Reserve and Runcorn Local Nature Reserve.

The diversity of vegetation and slow flowing nature of the area makes it ideal for water voles which have been observed on many of the tributaries. The Gowy catchment has been targeted by the MAFF Countryside Stewardship Scheme for Waterside Landscape to encourage farmers to retain uncultivated buffer strips along the waters edge. These will provide refuge for many species and ideal hunting ground for species such as the barn owl.

A number of bodies and initiatives are actively involved in conserving and improving the landscape and heritage of the area. The Mersey Forest proposals cover a significant part of the area and aim to create, restore and maintain tree cover. The Mersey Valley Partnership operates in the areas of Runcorn, Widnes and Warrington and aims to conserve and enhance the landscape and to improve public access.

Recreation & Amenity

Angling in the area is restricted to the stillwaters and canals. The stillwaters range from the Liverpool Park lakes, to the numerous small pits in Cheshire. These waters provide a variety of coarse fisheries, controlled predominately by local clubs. Sea fishing also takes place on the estuary and the Wirral coast.

The estuary is an important area for wildfowl and waders and the area provides many opportunities for bird watching, especially at Oglet Bay, Frodsham Marshes and Hale Head.

The area is fairly well covered by

footpaths, including the Sandstone Trail, Mersey Way and Trans Pennine Way. However, there is a need for more footpaths and for them to be linked.

There are a number of sites, within the area, where there is access to the estuary for sailing and where marina facilities are available. Canoeing is widespread across the area, on the Leeds/Liverpool, Bridgewater, Shropshire Union and St Helens canals, and there are launch sites onto the estuary. Some of the old Liverpool docks are used for a wide variety of water sports, including scuba-diving, jet-skiing, wind-surfing and dragon boat racing.



Spike Island, Widnes

4 Protection Through Partnership

4.1 General

The Department of the Environment's Statutory Guidance under Section 4 of the Environment Act 1995 (draft June 1996) 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.

4.2 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.

4.3 Mersey Strategy

The Mersey Estuary is not included in this LEAP. This was due to the existence of the Mersey Estuary Management Plan (MEMP), now the Mersey Strategy, which is part of the Mersey Basin Campaign. We decided that we would not include the estuary in this LEAP but instead we would work closely with the Mersey Strategy in the production of an Action Programme for the estuary. The Strategy also covers a wider remit than LEAPs which are restricted to the fields of work of the Agency.

Louise Hopkins has been employed by the Steering Group, of the Mersey Strategy, as a Co-ordinator for the estuary, and work on the production of the Action Programme is now underway, with a view to presenting the final plan to the Mersey Estuary Forum in spring 1998. The Action Programme represents one stage in what is seen as being an ongoing open process, leaving the plan open for change and development. Four topic groups have been created to look at the four subject areas set out in the MEMP, Estuary Resources, Economic Development, Recreation and Understanding and Monitoring. The topic groups are made up of representatives from the major bodies and organisations who have an interest in the area. The aim of these topic groups is to identify the issues that need to be addressed within the area and produce a plan to tackle them.

The Action Programme will initially be for a five year period and at this early stage it will be necessary to prioritise the issues to some extent. Issues that are to be taken forward into the plan will be those where it is felt something can be achieved within this five years period, other medium and long-term issues

may be identified to be actioned in future plans. Many of the actions to address the issues will, in the first phase, be the initial investigations which are necessary to gather more data to assess the extent of the problems and to identify what future work needs to be carried out.

The actions which go into the plan will have timescales, costs and responsible parties identified for them and it is envisaged that many joint workings and partnerships will be created to carry out the identified work.

The Agency will use the Mersey Strategy Action Programme in the same way as it will use this Lower Mersey LEAP Action Plan. This means that activities and work identified, for the Agency, within the Action Programme will be fully endorsed and will be taken forward each year into the annual Management Action Plans for the Agency in the North West region.

For information on the Agency's involvement and actions within the Mersey Strategy Action Programme you can contact William Crookshank (details at the front of this document). For more general information on the Mersey Strategy, and its Action Programme contact:

Louise Hopkins
Mersey Estuary Co-ordinator
Department of Planning and Economic Development
Wirral Metropolitan Borough Council
Town Hall, Brighton Street
Wallasey, L44 8ED

Telephone: 0151 6918216
Fax: 0151 6918180

4.4 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 co-ordinated way.

The Agency works closely with the campaign and also with the RVIs. Within the LEAP area there is one RVI, RIVA 2005, which covers part of the Wirral. At present the Agency is part funding a project officer and a conservation audit of the Wirral's streams, within RIVA 2005. Sankey Now is the RVI for Sankey Brook which is covered in the Sankey/Glaze LEAP. This RVI also covers the Sankey Canal which has its lower reaches in this LEAP area. The Mersey Strategy, which has already been mentioned, is also regarded as an RVI and sits under the campaign. Across the rest of the South Area, there are many more RVIs, which are supported by the Agency.

The Mersey Basin Campaign also established Water Watch, which is a major initiative to clean up and improve the water environment. 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. It is managed by the Tidy Britain Group and works closely with the Agency.

Stream Care is also a project to come out of the Mersey Basin Campaign. It has been funded by the Countryside Commission, North West Water Ltd. and the Agency. The project backs local groups on small scale projects, such as clean ups and tree planting, and has carried out work on the Wirral and in the Halton area within this LEAP area, as well as through out the Mersey Basin Area.

The campaign also runs the Water Detectives project, which helps teachers to carry out river studies, with their students, by providing hands on expertise and resources.



Duck Decoy, Hale

4.5 Other Partnerships

Cheshire Wildlife Trust

Joint Countryside Advisory Service

Pond "Life" Project (John Moores University)

Cheshire Peatlands Inventory

Stillwaters Project

Greater Manchester Wildlife Working Group

Cheshire Nature Conservation Group

Cheshire and Wirral Ornithological Group

Cheshire and Wirral Herpetological Group

Cheshire Barn Owl Conservation Group

Cheshire 2011, Sustainability Forum

Cheshire Constabulary Wildlife & Environment Officer

Mersey Valley Partnership

Cheshire Meres and Mosses Forum
Mersey Estuary Conservation Group

Ministry of Agriculture, Fisheries and Food "Agri-Environment"

Wirral Primary Partners - Wirral Education Authority.

Lancashire Wildlife Trust

Ellesmere Port and Neston Borough Council, Single Regeneration Budget - Air Quality Monitoring.

Merseyside Waste Minimisation Demonstrator Project, Merseyside Innovation Centre North West Regional Association: commissioned a study on Waste management.

ICI Runcorn: Dioxin Study.

Project Pathway: Contaminated Land Study.

Mersey Forest

Merseyside District Planning Offices Group

Cheshire Chief Planning Offices Group

Local Authorities contribute to the drive for sustainable development through Agenda 21. This is a green agenda for the 21st century, tackling global problems on a local scale.

Local Biodiversity Action Plans (LBAPs) are also to be put in place to monitor and improve biodiversity on a local scale. At present these are mainly in the planning stage, but the Agency expects to have a considerable input to these plans.

5 Actions

5.1 Implementation

Implementation of this plan is based on the 23 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 time table 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 who's function is responsible for the action. This document is produced in good faith, recognising current priorities, both within the Agency and other organisations. Future Annual Reviews will include more targeted costings and specific sites after these have been investigated.

Key

- > Greater than.
- .
- 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.

* Only Agency costs (other than normal working costs) identified here. Costs to other organisations unknown.

K £1,000.

Abbreviations

AMP	Asset Management Plan
BTCV	British Trust for Conservation Volunteers
CLA	Country Landowners Association
CPRE	Campaign for the Protection of Rural England
EN	English Nature
FRCA	Farming and Rural Conservation Agency
FWAG	Farming and Wildlife Advisory Group
IPC	Integrated Pollution Control
JCAS	Joint Countryside Advisory Service
LAs	Local Authorities
LBAPs	Local Biodiversity Action Plans
MAFF	Ministry of Agriculture, Fisheries and Food.
NFU	National Farmers Union
NWW Ltd.	North West Water Limited.
PCB	Polychlorobiphenyls
RSPB	Royal Society for the Protection of Birds
UDP	Unitary Development Plan

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ISSUE 1 ADVERSE IMPACT OF DISCHARGES FROM WASTEWATER TREATMENT WORKS (WwTW)

Improvement work and additional treatment will be completed by the year 2000 at Sandon Dock, Warrington, Widnes, Bromborough and Birkenhead WwTWs. Also if a change of designation is approved Moels works will require secondary treatment. The flows from Wallasey will be diverted to Birkenhead and Halewood works will be closed and the flows diverted.

There are a number of watercourses that fail the proposed long term River Quality Objectives (RQO), or fail EU Directives, such as the Fish Directive with regards to nutrients. In many cases the main impact on water quality in a designated stretch is the discharge from a WwTW.

Much of the work being done by NWW Ltd. at present is part of the second Asset Management Plan (AMP 2) for the time period 1995 to 2005. Other WwTW are being assessed to determine if future improvements are required, a list of these when finalised will be put forward to be considered for improvement in AMP 3.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Assess the impact of WwTW on rivers failing the RQO or an EU Directive.	Environment Agency (S C Lever).		R	●	●	●	●	●	●
2. Prioritise works needing improvements in AMP 3 using environmental benefit assessment.	Environment Agency (S C Lever).		R	●	●				
3. Once completed monitor and assess the water quality following improvements at the WwTW.	Environment Agency (S C Lever R Lammings).		R		●	●	●	●	●

ISSUE 2 ADVERSE IMPACT OF INDUSTRIAL DISCHARGES ON WATER QUALITY

The Environment Agency undertakes regulatory monitoring to see if the standards set in EU Directives for Dangerous Substances are being met, and what reductions of various substances have to be made to achieve the proposed River Quality Objectives.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. On new developments promote discharges to sewer.	Environment Agency (R Lamming, S C Lever).		R	●	●	●	●	●	●
2. On new and existing discharges negotiate discharge consents that will ensure environmental needs are being met.	Environment Agency (R Lamming, S C Lever).		R	●	●	●	●	●	●
3. Investigate and control the release of substances by regulation and enforcement.	Environment Agency (R Lamming, S C Lever).		R	●	●	●	●	●	●
Investigate source of DCE in Gowey.	Environment Agency (S C Lever).		6	●					
4. Minimise waste from industry, recycle or re-use materials.	Environment Agency (R Lamming, S C Lever).	Company	R	●	●	●	●	●	●
5. Set up procedures for prompt response to works malfunctions or accidents.	Environment Agency (R Lamming, S C Lever).	Company	R	●	●	●	●	●	●
(a) Oil Spill Emergency Cleanup.	Shell(UK).	Environment Agency, Mersey Basin Campaign other oil companies	U(A)	●	●	●	●	●	●

DCE 1 2 Dichloroethane a general solvent

A= Unknown costs for an exercise being funded predominantly by Shell (UK).

ISSUE 3 ADVERSE IMPACT FROM INDUSTRIAL SITE AND TRADING ESTATE DRAINAGE

There are a large number of trading and industrial estates in the area covered by this LEAP. On many estates there is a regular change of unit owners. Through ignorance or neglect pollution can occur.

The Environment Agency seeks to reduce contamination of surface water discharges by promoting good housekeeping on trading estates and through pollution prevention guidance. In some cases, where known problems exist, The Agency in negotiation with site owners, the Local Authorities and North West Water seek to rectify the situation through the installation of interceptor devices or other engineering solutions.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Undertake Industrial site and estate surveys, visit units and identify drainage problems.	Environment Agency (R Lamming).		R	●	●	●	●	●	●
(a)Astmoor Estate drainage survey.	Environment Agency.		1.5	●					
2. Promote site improvement and pollution control.	Environment Agency (R Lamming).		R	●	●	●	●	●	●
3. Rectify identified problems.	Owners, Local Authorities, NWW Ltd.		U(A)						

A = As and when schemes are identified. These will be reported upon in future reviews of this plan.



ISSUE 4 ADVERSE IMPACT OF CONTAMINATED SURFACE WATER DISCHARGES

The Environment Agency compiles lists of identified contaminated discharges and prioritises them on how significant the impact of the discharge is on the local watercourse.

The rectification of wrong connections is undertaken by the property owner after it has been identified by Local Authorities as Agents for North West Water Ltd (NWW Ltd). NWW Ltd. make available funds for the identification of the problems, however, this work is not part of the company's capital programme and only when funds are available can the priority work be undertaken. Negotiations are taking place and a list of priority problems that will be done before the year 2000 are to be finalised with NWW Ltd. in 1997. This list includes contaminated overflows on the Wirral.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Identification and prioritisation of wrong connection problems.	Environment Agency.	Local Authority.	R ●	●	●	●	● ●		
2. Correction of wrong connections.	NWW Ltd.	Local Authority, householders, site owners.	U(A)		●	●			●

A = Discretionary spending when funds become available. This will be reported upon in future reviews of this plan.

ISSUE 5 ADVERSE IMPACT FROM OVERFLOWS ON THE SEWAGE NETWORK

The increase in residential and commercial development over recent years has resulted in increased flows in the sewerage network. In older systems there is inadequate sewer capacity and problems with blockages which result in the premature operation of the storm overflows.

NWW Ltd. will be carrying out work on a number of sewerage networks up to the year 2000 and further problem areas have been identified for improvement up to the year 2005. The Agency are producing further lists of unsatisfactory overflows to be considered for improvement or abandonment beyond 2005.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE					
	LEAD	OTHER												
1. Reduce the number of unsatisfactory combined sewer overflows.	NWW Ltd.		U(A)											
(a) Hoylake											●	●	●	●
(b) Runcorn										●	●			
2. Monitor work undertaken.	Environment Agency (S C Lever).	Local Authorities	R	●	●	●	●	●	●					

A = North West Water Ltd. spending.

ISSUES 6 & 7 ILLEGAL WASTE DISPOSAL ACTIVITY

In common with many other areas, there is a significant problem of illegal waste disposal activity, including 'flytipping'. A wide range of wastes are deposited on all kinds of open sites, and into watercourses.

As well as the obvious detriment to amenity, flytipping often brings the risk of environmental pollution, physical injury and damage to health. Illegal Tipping into watercourses is a particular problem in urban areas. Debris in rivers can build up and block the flow of water, especially in culverts and under bridges, increasing the risk of flooding to roads and property.

The Environment Agency has a range of enforcement and control measures, as well as the ability to work in partnership with others to tackle this problem.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Participate in initiatives to improve awareness and information on best waste management practice and facilities, and discourage illegal activity.	Environment Agency (R Lamming) Local Authority.	Owners, Residents, Waste Management Companies, Police, Community Groups, Voluntary Groups, Water Watch, Stream Care, Tidy Britain Group.	R ●	●	●	●	● ●		
2. Promote the control of unauthorised access to problem sites and watercourses.	Environment Agency (R Lamming, P Younge), Owners.	Local Authorities.	R	●	●	●	●	●	●

This Issue combines Issues 6 and 7 from the Consultation Report.

As part of its core duties, the Agency will continue routine maintenance to remove debris from watercourses, and take action against those responsible for illegal waste disposal generally.

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



ISSUE 8 POLLUTION AND LOSS OF HABITAT CAUSED BY AGRICULTURAL ACTIVITY

Many waterside fields are ploughed and cultivated to the very top of the bank leaving no buffer against spray drift, run off, disturbance and erosion. An uncultivated bankside strip can provide wildlife habitats and a bank protected by natural vegetation is likely to be more stable and prevent excessive erosion which can cause damaging siltation downstream.

Nitrogen can be removed from field run off and drainage by passing through vegetated buffer strips. Removal of phosphorus is less successful. The efficiency of these strips is reduced if land drains are present and continue to flow directly to the watercourse.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Identify watercourses where uncultivated buffer strips would be most beneficial.	Environment Agency (A R Lee).	FRCA, FWAG, NFU, Wildlife Trusts, Local Authorities.	3		1.5	1.5			
2. Identify land owners willing to create uncultivated strips along watercourses, in partnership with grant awarding organisations.	Environment Agency (A R Lee).	FRCA, FWAG, NFU, Wildlife Trusts, Local Authorities, Forestry Authorities.	4				2	2	
3. Promote good farming practice.	Environment Agency (S Lever).	FRCA, NFU, FWAG, Wildlife Trusts, RSPB.	R	●	●	●	●	●	●

ISSUE 9 THE NEED FOR CONTINUED HABITAT IMPROVEMENT AND RETENTION OF EXISTING HABITATS TO PROTECT AND INCREASE BIODIVERSITY

A diversity of natural features, such as meanders, riffles, pools, emergent vegetation and bankside cover within wide river corridors; ponds and wetland habitats; trees, hedgerows and haymeadows; are required to sustain viable populations of a wide range of wildlife species. By creating new habitats and removing threats to existing habitats, species will be encouraged to reach their target distribution and status.

Water vole numbers and their distribution have reduced sharply over recent decades. Plans for this species are being developed both locally and nationally and we will adopt their recommendations.

The black poplar is now considered to be the most endangered native timber tree in Britain. The native gene-pool needs to be protected. We will seek to plant native black poplars in appropriate locations (eg. along banks of R. Gowry and R. Birket, Wirral).

The natterjack toad became locally extinct at Crosby and Bootle many years ago, but still holds onto Hightown just outside this LEAP area (within Alt-Crossens CMP area). Future opportunities to re-establish the species at Crosby will be explored in partnership with the Wildlife Trusts, the local authority and English Nature. The translocated population at Red Rocks, Wirral are being monitored by Cheshire Wildlife Trust.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Contribute to the development of Biodiversity initiatives eg: LBAPPs, Species Action Plans, Local Biodiversity Audits, Species Recovery Programmes.	Local Authorities, Cheshire Wildlife Trust, JCAS, EN, RSPB, specialist local groups.	Environment Agency (A R Lee).	R(A)	●	●	●	●	●	●
2. Further the conservation of important species and habitats (eg: Black poplars, barn owls, bats, natterjack toads) through opportunist projects as funds become available.	Wildlife Trusts, Local Authorities, local wildlife organisations and specialist groups.	Environment Agency (A R Lee).	U(B)						
3. Identify, record & monitor the distribution and status of the water vole and otter within the study area in order to protect and enhance populations.	Environment Agency, Cheshire Wildlife Trust, JCAS.	EN, Local specialist groups, local authorities, Cheshire Agenda 21.	U(C)						
4. Work in partnership and exchange available information with other organisations to protect and promote vulnerable landscape and river corridor features.(eg: via River Valley initiatives).	Environment Agency (A R Lee).	Cheshire Wildlife Trust, JCAS, EN, FRCA, FWAG, Local specialist groups, local authorities, RiVa 2005, RSPB, National Trust, CPRE, Merseyside Museums, Cheshire Econet, CLA, NFU, BTCV.	20	20	●(D)	●	●	●	

A = As and when required.

B = As and when funds become available. These will be reported on in future reviews of this plan.

C = Funds may be made available for specific surveys. These will be reported on in future reviews of this plan.

D = Future budgets have not yet been confirmed. These will be reported on in future reviews of this plan.

Work already carried out in the study area includes :-

- planting of Black Poplars and other native trees alongside the River Gowy in partnership with FWAG.
- provision of a baseline survey of otter distribution and habitat survey data for the River Gowy to enable monitoring of the otter population, in partnership with Cheshire Wildlife Trust, and creation of otter holts along R. Gowy.
- part funding of Cheshire and Wirral Biodiversity Audit for Cheshire Wildlife Trust.
- part funding Cheshire Peatland Inventory for Cheshire County Council
- the Agency is a partner in the North West Biodiversity Steering Group, Cheshire Local Agenda 21 group, the Sustainable Cheshire Forum, Cheshire Wildlife Working Group, Cheshire and Wirral Amphibian and Reptile Group and Cheshire Barn Owl Group.

ISSUE 10 ADVERSE 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 which pose a threat of serious harm or pollution.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Undertake detailed investigations.			R	●	●	●	●	●	●
(a) PCB contaminated waste at BICC Helsby.	BICC.	Environment Agency (R Lamming).	U(A)	●					
(b) Hoole Bank extent of groundwater pollution.	Chester Action Programme.	Environment Agency (R Lamming).	1.5	●					
2. Integrated study on a project for the rehabilitation of Stewards Brook, Widnes.	Environment Agency.	Halton Borough Council.	40(B)	●					
3. Initiate and coordinate action over sites.	Environment Agency (R Lamming).	Local Authority, Landowners.	R	●	●	●	●	●	●
4. Remediation of sites.	Local Authorities.	Environment Agency, Landowners.	U(C)						●
5. Develop a database of sites.	Environment Agency (S C Lever).		U(D)						●

A = Costs to BICC.

B = This project aims to identify a series of collaborative initiatives for rehabilitation, involving many bodies and sources of resources.

C = Dependant upon the first action and the availability of funds and resources. This will be reported on in future reviews of this plan.

D = Work presently ongoing, future costs are unknown.

ISSUE 11 DETERIORATION IN GROUNDWATER QUALITY DUE TO INTRUSION OF SALINE WATERS

Prior to the licensing controls introduced by the Water Resources Act, 1963, groundwater abstraction was largely unregulated. In the past abstraction has exceeded natural recharge in and around the Lower Mersey area, effectively 'mining' groundwater. As a result, in some areas, groundwater levels have been depressed to below sea level. In places adjacent to the Mersey Estuary this has caused a reversal of the hydraulic gradient, allowing saline waters from the estuary to flow into the aquifer. Other sources of old, poor quality (saline) groundwater are also present at depth in certain parts of the aquifer. This can be intercepted and mobilised by "over-pumping" from deep boreholes.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Investigate and monitor problem and establish priorities for action.	Environment Agency.		U(A)		●				●
2. Abstract only sustainable yield & promote good practice & reduce leakage.	Environment Agency, Licence Holders.		R	●	●	●	●	●	●

A= Two projects are in place to look at the whole of the West Cheshire Aquifer and saline intrusion will be looked at within these projects. Phase 1 is set for 1998/9 and has a budget of 40k. Phase 2 will follow and has a budget of 60k.

ISSUE 12 MANAGEMENT OF AGRICULTURAL WATER USAGE

Agriculture is a prime user of both surface and groundwater for irrigation and other farming practices. Irrigation is the most critical of agricultural uses as it is consumptive and demand is at its highest in summer when river flow is low and the impact on the watercourse is greatest. The licensing system balances the needs of the environment with those of the environment with those of the abstractor to minimise any environmentally damaging effects.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Promote the efficient use of water resources in agriculture (a).	Environment Agency, Farming Community, MAFF, NFU.		4	●	●				
2. Encourage winter shortage.	Environment Agency, MAFF, NFU.		R	●	●	●	●	●	●

(a) The Agency has run a series of seminars in 1997/98 to Farmers promoting the efficient use of water, it is proposed that an equivalent series of seminars be run in 1998/99.

ISSUE 13 INCREASING NUMBERS OF PROPERTIES AT RISK FROM FLOODING, DUE TO DEVELOPMENT OF THE FLOOD PLAIN

There is increasing pressure for the development of flood plains within urban areas.

Many existing homes and properties, within the natural flood plain, are thought to be protected, because they are behind flood defences. However, they remain vulnerable to flooding, from breaching or overtopping of flood defence structures.

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

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.

In the South area, we have recently undertaken a scheme to identify areas most in need of flood warning. When complete, in March 2000, this will form the basis for the development of the next phase of flood warning zones. Meanwhile, when existing properties are perceived to be at risk, we will develop flood warning zones to ensure continued public safety and protection to property in these areas also.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Identify areas at risk (Section 105).	Environment	Local Authorities.	286(A)	●	●	●	●		

A = The present timetable for the survey of the Lower Mersey, Gowy and Weaver catchments.

S105 7/98 - 12/98 Ph 4 Widnes/Liverpool
 1/99 - 12/99 Ph 5 Runcorn
 4/99 - 10/99 Ph 6 Gowy/Wirral

** EA Policy Document : Policy and Practice for the protection of Floodplains.



Development Around Keckwick Brook

ISSUE 14 RISING GROUNDWATER LEVELS INCREASING THE RISK OF POLLUTION AND FLOODING

Groundwater levels are rising in parts of the catchment as a result of the cessation of minewater pumping, due to the closure of local deep coal mines and the reduction or cessation of groundwater abstraction from the Permo-Triassic sandstone aquifer by the water supply undertaker (NWW Ltd.) and former industrial users.

Where natural (pre-pumping) groundwater levels were originally at or close to ground level full recovery poses potential problems of flooding and/or pollution.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Investigate problem and establish priorities for action. ¹	Environment Agency, NWW Ltd.	Mersey Rail, Coal Authority.	R	●	●	●	●	●	●
2. Investigate the feasibility of re-establishing the pumping of groundwater and treating for utilisation for other uses. ²	NWW Ltd., Environment Agency, MAFF, Local Authorities.		U						

1. The Agency is currently monitoring groundwater levels. Research into rising groundwater in Merseyside and risk the from mine closures is currently underway.

2. Leaking sewers and water mains are contributory factors in urban areas. Mersey Rail have already implemented a pumping scheme to keep their tunnels dry. The situation is being monitored and partnership solutions are being sought.

Reeces Cafe Borehole, Liverpool NGR SJ34809030



ISSUE 15 INEFFECTIVE USE OF WATER RESOURCES

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)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Reduce leakage to economic levels.	NWW Ltd.	Environment Agency.	U(A)	●	●	●	●	●	●
2. Introduce demand management.	NWW Ltd.	Environment Agency.	R(B)	●	●	●	●	●	●
3. Reduce domestic leakage and demand.	General Public, NWW Ltd., Environment Agency.		R(C)	●	●	●	●	●	●

A= North West Water Ltd currently have £45 million per annum, budgeted to address this problem 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.

B and C = North West Water Ltd are producing literature to raise awareness on these problems.

The Agency has engaged a demand management coordinator to encourage use of demand management techniques within the Region and the LEAP area.

Liaison work with NWW has resulted in agreements on leakage reduction targets, and improvements have been made within the LEAP area during the time period of the LEAP. There has also been a great deal of progress on demand management and the control of domestic leakage.

ISSUE 16 ADVERSE IMPACT OF URBAN RUN-OFF AND DRAINAGE FROM MAJOR ROADS AND MOTORWAYS

A number of major roads cross the area covered by this plan. On a number of watercourses there is a recognised impact from road drainage. The effect on water quality of these intermittent discharges on many small watercourses is not fully known. On new road schemes the installation of interceptors and stormwater controls is promoted at the planning stage.

One of the problems that the Agency has is that no single database contains the information on all the motorway drainage overflows. If the information was easily accessible Agency staff could put into place emergency measures far quicker knowing which outfall a motorway section drained to.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Collect information on drainage outfalls for major roads.	Environment Agency (R Lamming).	Highways Agency, Local Authorities.	R	●	●	●	●	●	●
2. Identify watercourses where problems from road damage drainage occur.	Environment Agency (R Lamming).		R	●	●	●	●	●	●
3. Develop a database of drainage outfalls.	Environment Agency (S C Lever).		U(A)						●

A = Work is already underway on data collection, future costs are unknown.

ISSUE 17 ADVERSE IMPACT ON WATER QUALITY FROM PRIVATE SEWERAGE AND SEWAGE SYSTEMS

From the 1st April 1996 sewerage undertakers (NWW Ltd.) have a responsibility to consider, applications for the provision of first time sewerage in a locality where environmental and amenity problems exist.

In some cases the provision of a sewer is not cost efficient or environmentally beneficial considering disturbance from pipe laying, siting of the pipe line and pumping stations. Improvements may be made by undertaking better maintenance, improving the present plant or even moving the discharge point. The Agency provide information and guidelines on small sewage treatment plants and septic tanks, as do other bodies including The National Trust.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Collect the evidence on the discharges.	Environment Agency (R Lamming).		R	●	●	●	●	●	●
2. Promote better maintenance & use of tank friendly products.	Environment Agency (R Lamming).		R	●	●	●	●	●	●

ISSUE 18 LACK OF SUSTAINABLE FISH POPULATIONS.

Water quality within Ditton and Wirral Brooks, and to a lesser extent in the River Gowy, is poor and therefore these watercourses do not meet their habitat potential for maintaining sustainable fisheries.

Water quality improvements would increase the diversity and quality of the fish populations present and make available more habitat for the establishment of further self sustaining fisheries.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Investigate the potential and encourage the stocking of fish as water quality improves sufficiently to support a sustainable course fishery.	Environment Agency (A R Lee).	Fishery Owners, Angling organisations.	R	●	●	●	●	●	●
2. Continue routine monitoring of fish populations to identify problem, or improved, areas and measure any stocking success.	Environment Agency (A R Lee).	Fishery Owners, Angling Organisations.	4.25		0.5	1.5	1.5	0.75	●

ISSUE 19 EXTENT OF CHANNELISED AND OVER-MANAGED WATERCOURSES CREATING LOSS OF HABITAT AND AMENITY

Many watercourses in the area have been straightened, deepened and shortened. To create more space for development and agriculture and to drain the land more effectively, banks have been reinforced or reprofiled, long lengths have been floodbanked and relatively few river corridor habitats have been left undamaged. The lack of variety and natural features also means that rivers are less attractive and can be less valued.

The Environment Agency works to protect those stretches of watercourse and river corridor which retain some value for wildlife. We also aim to enhance those which are more degraded. Some stretches may be suitable for rehabilitation.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Identify stretches suitable for enhancement & rehabilitation.	Environment Agency (A R Lee).	Local Authorities, Groundwork, Cheshire Wildlife Trust, JCAS.	R	●	●	●	●	●	●
2. Identify and investigate sources of funding for known projects.	Environment Agency (A R Lee).		2						
3. Implement Prescot Brook river restoration project (Ditton catchment).	Environment Agency (A R Lee).	NWW Ltd., Knowsley BC.	150	150					
4. Implement appropriate enhancement and rehabilitation schemes.	Environment Agency (P Younge).	Local Authorities, Groundwork, Mersey Forest, Forestry Authority.	U(A)						
5. Identify and promote sustainable river management techniques.	Environment Agency (A R Lee).	FWAG.	90	●	●?				

A = Depends upon actions 1 and 2.

B = The Sustainable River Management Project is a joint venture between the Environment Agency, the Farming and Wildlife Advisory Group and landowners/farmers. Initially, it will involve the identification of watercourses which are suffering from accelerated erosion due to over-grazing. With landowner consent, these watercourses will be fenced off from grazing and the effects monitored. Its aim is to aid re-establishment of bankside vegetation and reduce erosion and siltation rates in the watercourse.

Ditton Brook, Widnes.



ISSUE 20 INVASIVE NON - NATIVE PEST SPECIES

There are several examples of both plant and animal species that have been introduced into this country and are now causing problems to the native flora and fauna through competition, predation or disease.

In this area these include :-

- Mink - Gowy area;
- Signal crayfish - Gowy area;
- Giant hogweed - Wirral area;
- Japanese knotweed - throughout;
- Himalayan balsam - throughout;
- New Zealand swamp stonecrop (*crassula helmsii*) - Merseyside area;
- Water fern (*azolla* spp.) - Merseyside area.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Investigate the distribution of mink in the study area and assess current problems associated with their presence.	MAFF, Wildlife Trusts, Manchester Metropolitan University.	Environment Agency (A R Lee).	U(A)	●	●				
2. Assess the current status of crayfish in the area.	Cheshire Wildlife Trust.	Environment Agency (A R Lee).	U(B)	●	●				
3. Investigate the extent of Japanese knotweed, Himalayan balsam, Giant hogweed, Crassula and Azolla.	Environment Agency (A R Lee).	General Public, Cheshire Wildlife Trust, JCAS, ranger services, landowners.	R	●	●	●	●	●	
4. Develop 'best practice' guidelines for field staff to prevent the spread of non-native plants, from site to site, during site visits, sampling and maintenance operations.	Environment Agency (A R Lee).	English Nature, ranger services, Wildlife Trusts.	1		1				
5. Carry out appropriate control programme for Giant hogweed.	Environment Agency.	Local authorities, ranger services, landowners.	U(C)	●	●	●	●	●	
6. Produce leaflet for garden centres in area to explain threat to native flora by planting invasive, non-native plants.	Environment Agency (A R Lee).		U(D)	●	●				

A = Unknown cost because this information is spin off from other projects, for example, MAFF study of mink in Cheshire and information collected via otter and water vole surveys.

B = A project proposal is being submitted at present.

C = Money will be allocated to sites when the need is identified.

D = This will be done as and when resources become available.

ISSUE 21 CULVERTS CAUSING FLOOD RISK AND LOSS OF HABITAT

Culverts can prevent or impede the free flow of water and wildlife along watercourses. In urban areas culverts can cause flooding to property due to blockage or collapse, unless regular maintenance is carried out to keep them clear. The detection of pollution is complicated when surface water systems discharge within culverts.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	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, Mersey Basin Campaign, Landowners, Groundwork, River Valley Initiatives, Developers.	R	●	●	●	●	●	
2. Install debris screens and telemetry as appropriate on culvert entries.	Environment Agency (P Younge).		266						126
3. Reduce flows into culverts by attenuating flows, storing flood waters or providing alternative routes for flood flows.	Environment Agency (P Younge), Local Authorities, NWW Ltd., Owners.	Developers, Owners.	U(A)	●	●	●	●	●	

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

The Agency's policy is that culverts should be opened up and restored to open river corridors wherever possible.

ISSUE 22 POOR ACCESS TO WATERCOURSES FOR MAINTENANCE WORKS AND RECREATIONAL ACTIVITIES

Poor access to stretches of watercourse can impede regular maintenance, emergency works and recreational activities. Rivers and streams may become neglected and undervalued where people cannot walk along them. Development to the tops of banks leaves no habitats for wildlife. However, the provision of linear green spaces along watercourses can act as a buffer against damaging activities as well as providing access for maintenance and recreational purposes.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Identify where improvements to public access are necessary and encourage the creation and extension of linear parks. There is currently an on-going project on numerous river systems, including ArroeBrook & Dibbinsdale Brook.	Environment Agency Local Authorities.	Developers, Owners.	R	●	●	●	●	●	
	RiVa 2005.		U(A)	●	●				
2. Investigate the potential for meeting the needs for signage and interpretation boards, on and near to river crossings and across public footpaths and help implement.	RiVa 2005.	Environment Agency, Groundwork Trusts, Local Authorities, Riparian, Owners, Mersey Basin Campaign.	U(B)	●	●				
3. Increase public awareness within public of watercourses.	Environment Agency.	Schools, Groundwork Trusts, StreamCare, River Valley Initiatives.	R	●	●	●	●	●	●

A and B = Costs to RiVa 2005 which is partially funded by the Agency.

As a core duty we continue to seek to increase public awareness of the existence, nature and purpose of watercourses.

Through the development control process and the land drainage bylaws we encourage Local Authorities, developers and landowners to provide and enforce access strips along watercourses.

If access cannot be created, it is possible that we would use specialised maintenance equipment to work in restricted areas.

Education Packs for schools are currently available for the Arroe Brook and Dibbinsdale Brook river corridors. These packs are produced by the Wirral Ranger Service in conjunction with the Wirral Education Authority, and are designed to encourage children to undertake special river projects, learn about the river environment and where the river flows, the geography of the area and pollution of the watercourse.

Partnerships exist with RiVa 2005 for increasing public awareness of watercourses.

NEW ISSUE 23 LACK OF AWARENESS OF SUSTAINABLE WASTE MANAGEMENT

In December 1995, the Government published 'Making Waste Work - a strategy for sustainable waste management in England and Wales'. The objectives are:

- To reduce the amount of waste that society produces
- To make the best use of the waste that is produced
- To minimise the risks of immediate and future environmental pollution and harm to human health
- To increase the proportion of waste managed by the options towards the top of the waste hierarchy - Reduction, Reuse, Recovery (including recycling, composting and energy recovery), and finally Disposal.

The Agency will have a key role in delivering this strategy at the local level.

ACTION	RESPONSIBILITY		TOTAL COST (£K)	1997 /98	1998 /99	1999 2000	2000 /01	2001 /02	FUTURE
	LEAD	OTHER							
1. Promote the environmental and economic benefits of sustainable waste management to industry, commerce householders and others.	Environment Agency (S Lever), Central Government, Local Government.	Business Links, Groundwork, Consultancies, Community and Voluntary Sectors.	R	●	●	●	●	●	
2. Promote, encourage and participate in waste minimisation and other initiatives and projects involving a range of waste producers and facilitators.	Environment Agency (S Lever), Local Government Business Links, Groundwork, Consultancies.		R	●	●	●	●	●	●



Paper Recycling

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.



River Gowy

Appendix 1: List of Respondents

Name	Organisation
Peter Foster	Sustrans Routes for People
Dr Margaret Curtis	Mersey Estuary Conservation Group
Patrick Green	BASC
Philip Parker	British Waterways
Dr D Bell	Warrington Borough Council
R J Ellison	Vale Royal Borough Council
Dr Ian Wallace	Liverpool Museum
Eric Harper	North West Water Ltd
Dr Jim Andrews	Sea Fisheries Committee
Jeffrey Lee	Cheshire County Council
Tamzin Phillips	The National Trust
Steve Freeman	SCARS
John Millett	Mersey Basin Campaign
David Watson	Warrington Borough Council
R G Drake	Inland Waterways Association
John Vass-de-Zomba	RiVa 2005
Gail Butterill	Cheshire Wildlife Trust
Deborah Kitson	Metropolitan Borough of Sefton
D J Davies	Ellesmere Port & Neston Liberal Democrats
Mike Murray	Ministry Of Agriculture, Fisheries and Food
Viv Mountford	Halton Friends of the Earth
Michael Payne	NW Region Inland Waterways Association
D E Kelly	Cheshire and Wirral Ornithological Society
Councillor Peter Black	
Colin Hayes	English Nature

Appendix 2: 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.

NORTH WEST REGION ADDRESSES

REGIONAL OFFICE

Environment Agency
PO Box 12
Richard Fairclough House
Knutsford Road
Warrington WA4 1HG
Tel: 01925 653 999
Fax: 01925 415 961

NORTH AREA

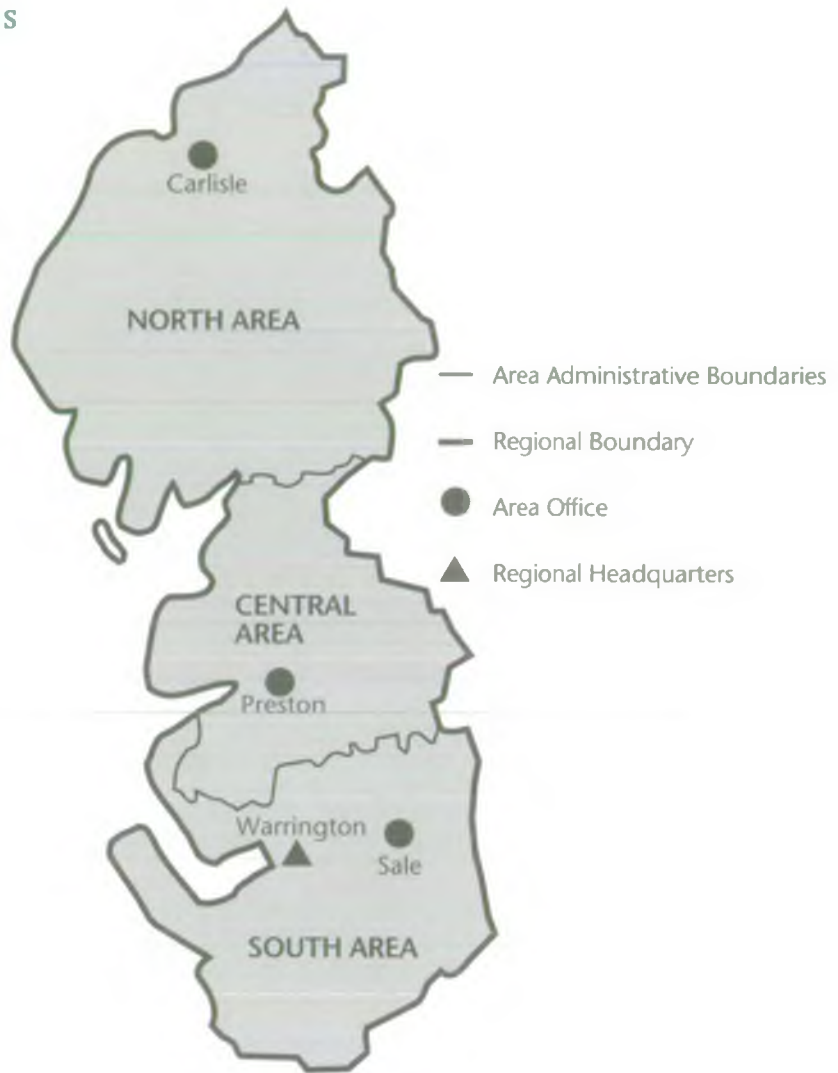
Environment Agency
Chertsey Hill
London Road
Carlisle CA1 2QX
Tel: 01228 25151
Fax: 01228 49734

CENTRAL AREA

Environment Agency
Lutra House
Dodd Way
Walton Summit
Bamber Bridge
Preston PR5 8BX
Tel: 01772 339 882
Fax: 01772 627 730

SOUTH AREA

Environment Agency
Mirwell
Carrington Lane
Sale M33 5NL
Tel: 0161 973 2237
Fax: 0161 973 4601



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**

0800 80 70 60



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