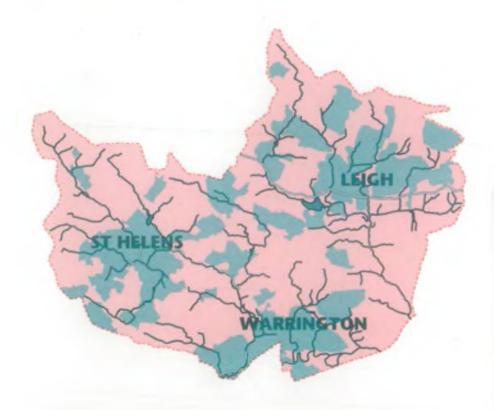
# local environment agency plan

# SANKEY/GLAZE

**ANNUAL REVIEW** 

SEPTEMBER 1999



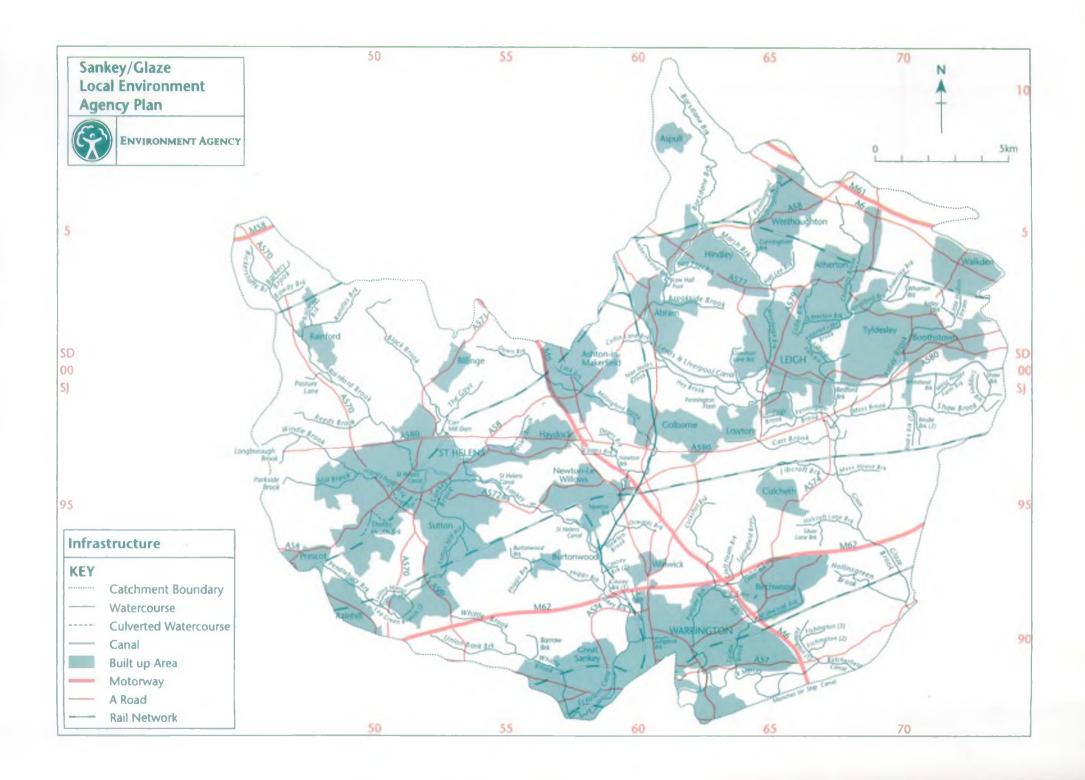


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Sankey/Glaze LEAP 2nd Annual Review



September 1999

### The Environment Agency's Vision for the Sankey/Glaze 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 Sankey/Glaze catchment 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. Sustainable development is defined as meeting present needs 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.

We will continue to work in partnership with the two River Valley Initiatives (RVI's) in the Sankey/Glaze LEAP area. The two RVI's are the Sankey NOW RVI (launched October 1995) and the Clear Glaze Partnership RVI (launched October 1998). Both RVI's aim to achieve co-ordinated improvements in the catchment, concentrating on water quality and riverside improvements. The RVI's work together with the local authorities, community groups, the Environment Agency and business to bring about changes that will benefit the community, economy and wildlife.

The vision for the area is centred on an environmental quality that will have improved to a level that supports 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. We would wish to see new development that is regulated to provide open river corridors with development sited to reduce the risk of flooding.

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.

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

#### 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.

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;
- to encourage the conservation of natural resources, animals and plants;
- to make the most of pollution control and river-basin management;
- to provide effective defences and warning systems to protect people and property against flooding from rivers and the sea;
- to reduce the amount of waste by encouraging people to re-use and recycle their waste;
- to improve standards of waste disposal;
- to manage water resources to achieve the proper balance between the country's needs and the environment;
- to work with other organisations to reclaim contaminated land;
- to improve and develop salmon and freshwater fisheries;
- to conserve and improve river navigation (not in this area);
- to tell people about environmental issues by educating and informing;
- to 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 (not in this area);
- use of inland and coastal waters for recreation.

Appendix 3 gives more details of our responsibilities and those of other organisations.

#### What a LEAP is for

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 Agency is the competent authority for managing and regulating the water environment, for regulating waste, major industrial processes, and contaminated land. We have duties to protect and enhance biodiversity in everything we do, to protect landscape and heritage, and to promote inland navigation and recreation. It is these areas that relate to our functions and dictate the fields in which we can raise specific issues.

#### 2. THE LOCAL ENVIRONMENT AGENCY PLAN (LEAP) PROCESS

The Agency has embarked on this process to:

- be open and accountable
- develop liaison and partnerships
- raise awareness of environmental issues
- prioritise issues and establish plans for improving areas.

There are three stages to achieve this:

#### **LEAP Consultation Draft**

The publication of the Consultation Draft marks the start of a three month period of formal consultation. The purpose of the consultation period is to enable the Agency and all external organisations and the general public to liaise and reach a consensus about the management of the area.

All views expressed are considered in preparing the next phase, the LEAP Plan. At the end of the consultation period a Statement of Public Consultation is produced which summarises the views expressed during the consultation process, and is available on request.

As part of this process an Environmental Overview is produced which is a factual description and analysis of the local environment and its associated pressures. The Environmental Overview is not subject to public consultation but is available on request.

#### **LEAP Plan**

The LEAP Plan takes into account the results of consultation and the views expressed. The plan contains a list of agreed actions that take account of costs and benefits as well as identifying timescales and partner organisations. These agreed actions will be incorporated into the Agency's annual business plans.

#### **LEAP Annual Review**

We will monitor implementation of the LEAP and report on progress in a published Annual Review. The Annual Review will also identify any new issues or additional actions needed to maintain progress in light of any changes in the LEAP area and also whether any actions need removing or amending where they are no longer appropriate. After five years, or sooner if required, we will carry out a major review of the progress we have made. At this stage we will produce a new LEAP Consultation Draft to reflect these changes to further improve the local environment.

#### 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.

### How this plan fits

The South Area of North West Region has been split into seven LEAP areas. This area is bounded by five other LEAPs, the Lower Mersey, Croal/Irwell, Mersey/Bollin, Douglas and Alt/Crossens. There will be LEAPs in place to cover the whole of England and Wales by the end of 1999.

### **Contacting the Agency**

If you would like to comment on this LEAP, or know more about this and other LEAPs, please contact:

Karen Bate Environment Planner (LEAPs) Appleton House 430 Birchwood Boulevard Birchwood Warrington WA3 7WD

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Fax: 01925 852260

#### 3. A NEW ENVIRONMENTAL APPROACH

The Agency's principal and immediate environmental concerns are stated in our national strategy 'An Environmental Strategy for the Millennium and Beyond' and relate to nine themes which represent the Agency's new holistic approach to environmental management and are as follows:

- 1. Addressing Climate Change.
- 2. Improving Air Quality.
- 3. Regulating Major Industries.
- 4. Managing Water Resources.
- 5. Delivering Integrated River-Basin Management.
- 6. Managing Freshwater Fisheries.
- 7. Enhancing Biodiversity.
- 8. Conserving the land.
- 9. Managing Waste.

We will deliver the strategy at a local level by dialogue between ourselves and the various organisations involved in the protection and management of the environment. As a first step towards achieving our aims and delivering our strategy in this catchment, issues have been raised and proposed actions, highlighting which theme(s) they contribute towards, have been identified, which now require to be consulted on.

#### 4. ISSUES AND OPTIONS FOR ACTION

This section gives information on the progress of the implementation of the Action Plan for the Sankey/Glaze LEAP. Progress since the production of the Annual Review in February 1998 is reported and future plans are identified.

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. This document is produced in good faith, recognising current priorities, both within the Agency and other organisations.

#### Key (Table)

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.

#### **Abbreviations**

NWW Ltd North West Water Limited.

CSW Contaminated Surface Water.

AMP Asset Management Plan.

WwTW Wastewater Treatment Works.

RQO River Quality Objective.

LAs Local Authorities.

DETR Department of the Environment Transport & Regions.

GIS Geographical Information System.

RVI River Valley Initiative.

FRCA Farming and Rural Conservation Agency.

FWAG Farming and Wildlife Advisory Group.

NFU National Farmers Union.

IFE Institute of Freshwater Ecology.

MAFF Ministry of Agriculture, Fisheries and Food.

MRS Metal Recycling Site.

LBAP Local Biodiversity Action Plan.

JCAS Joint Countryside Advisory Service.

EN English Nature.

RSPB Royal Society for the Protection of Birds.

GMEU Greater Manchester Ecological Unit.

CPRE Council for the Protection of Rural England.

CLA Country Landowners Association.

BTCV British Trust for Conservation Volunteers.

#### **ISSUE LIST**

#### 4.1 Addressing Climate Change

No specific issues.

#### 4.2 Improving Air Quality

No specific issues.

#### 4.3 Managing our Water Resources

Issue 1. Rising groundwater levels increasing the risk of pollution.

#### 4.4 Enhancing Biodiversity

- Issue 2. Extent of channelised and over-managed watercourses creating loss of habitat and amenity.
- Issue 3. Intensive cultivation of land to the edge of watercourses increasing the risk of pollution and loss of habitats.
- Issue 4. Threats to the habitats of Great Crested Newts.
- Issue 5. Invasive non-native pest species.
- Issue 6. The need for continued habitat improvement and protection of existing wildlife habitats to conserve and enhance biodiversity.

#### 4.5 Managing our Freshwater Fisheries

- Issue 7. Lack of sustainable fish populations.
- Issue 8. Lack of knowledge of the extent of use of Woolston Fish Pass by migrating fish.

### 4.6 Delivering Integrated River Basin Management

- Issue 9. Adverse impact of contaminated surface water discharges on surface water quality.
- Issue 10. Adverse impact from overflows on the sewerage networks on surface water quality.
- Issue 11. Adverse impact of discharges from Wastewater Treatment Works (WwTW) on surface water.
- Issue 12. Contaminated run-off from spoil heaps and discharges from abandoned mines causing pollution to surface and groundwater.
- Issue 13. Impact from industrial and trading estates drainage on surface water.
- Issue 14. Adverse impact of urban run-off and drainage from roads and motorways on surface water.
- Issue 15. Diffuse discharges causing pollution to both surface and groundwater.
- Issue 16. Culverts causing flood risk, poor water quality and loss of habitat.

- Issue 17. Maintenance problems caused by unstable banks.
- Issue 18. Poor access to watercourses for maintenance works.
- Issue 19. Impact of residual effects of mining subsidence on flood risk.
- Issue 20. Siltation causing flood risk.
- Issue 21. Lack of awareness and poor access to watercourses for recreational activities.
- Issue 22. The presence of blue green algae in Pennington Flash leading to public health and amenity problems.

### 4.7 Conserving the Land

Issue 23. Adverse impact of contaminated land on the environment.

#### 4.8 Managing Waste

- Issue 24. Adverse impact of litter and illegal waste disposal activity on land and into watercourses.
- Issue 25. Unauthorised waste activities: Metal Recycling Sites.

#### 4.1 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. As part of its overall aim of contributing to sustainable development, the Agency is addressing climate change as part of its work. 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 by reducing releases of the gasses 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, but if you can think of specific issues in this area please let us know.

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

### 4.3 Managing our Water Resources

# ISSUE 1 RISING GROUNDWATER LEVELS INCREASING THE RISK OF POLLUTION

The cessation of mining and the associated pumping of minewater for dewatering purposes will inevitably lead to a return to natural water table levels. This return to natural water table levels is expected to take many decades. The Agency is commissioning work to assess the timescales and identify where there may be potential seepage at the surface.

#### **Update of Actions since February 1998**

North West Water have, as part of their £85 million drought alleviation programme, recommissioned its Houghton Green and Winwick water treatment works by installing membrane filtration plants to guard against the risk of cryptosporidium. This now enables the use of the boreholes serving these treatment works to supplement existing supplies during peak demand periods.

The use of the Winwick and Houghton Green boreholes is for public water supply purposes only and not for the purpose of constraining the local rise in groundwater level.

Action	Respons	sibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000 2001	2001	
1. Investigate problem and establish priorities for action	Environment Agency		95(a)	•		

(a) The project to model the potential for minewater to seep into either public water supply aquifers or discharge to surface waters commenced during 1998. It is expected that the initial phase of this project will take two years.

### 4.4 Enhancing Biodiversity

# ISSUE 2 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 re-profiled, 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.

#### Update of Actions since February 1998

The conservation Assets Register of the Sankey Catchment have identified stretches of channelised and over managed watercourses which may be suitable for enhancement or rehabilitation.

The Clear Glaze Partnership set up two student projects with the Agency looking into the effect of channelisation on Water Quality and Ecology. They studied Jibcroft Brook at Culcheth. Results from the projects will follow.

Action	Respo	onsibility	Total	199 <b>9</b> /	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Identify stretches suitable for enhancement and restoration	Environment Agency (Bob Lee)	LAs, Groundwork Trusts	U	•	•	
2. Implement appropriate enhancement and restoration schemes	Environment Agency (Bob Lee, Phil Younge)	LAs, Groundwork Trusts, Mersey Forest, Forestry Commission	U	•	•	

# ISSUE 3 INTENSIVE CULTIVATION OF LAND TO THE EDGE OF WATERCOURSES INCREASING THE RISK OF POLLUTION AND LOSS OF HABITATS

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 Phosphorous is less successful. The efficiency of these strips is reduced if land drains are present and continue to flow direct to the watercourse. Field margins are targeted through the Countryside Stewardship scheme, and action targets have been set for 1999/2000.

#### **Update of Actions since February 1998**

As part of the conservation Assets Register of the Sankey Catchment consultants have identified stretches which are cultivated to the bank top and where riparian quality is poor.

Action	Respor	nsibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Identify watercourses where uncultivated strips would be most beneficial	Environment Agency (Bob Lee)	FRCA, FWAG, NFU, Wildlife Groups, LAs	U	•	•	
2. Identify landowners willing to create uncultivated strips along watercourses	Environment Agency (Bob Lee)	FRCA, FWAG, NFU, Wildlife Groups, LAs, Forestry Commission	U	•	•	

#### ISSUE 4 THREATS TO THE HABITATS OF GREAT CRESTED NEWTS

Ponds in the area are known to provide a stronghold for Great Crested Newts (GCN), but changes in land-use, development pressures and agricultural intensification have led to a loss of ponds and wetland habitats. Over-wintering habitats around a pond are necessary to sustain a viable population.

The Clear Glaze Partnership have adopted the Great Crested Newt as their logo which it is hoped will raise its profile in the area.

Action	Respor	nsibility	Total cost	1999/ 2000	2000/ 2001	Future
	Lead	Other	(£K)	2000	2001	
1. Create a database of existing GCN sites on GIS for use in the Agency's regulatory responses	Environment Agency (Bob Lee)	Wildlife Trusts, English Nature, Pondlife Project	U	•		
2. Input into and help to implement Biodiversity Action Plans and Local Biodiversity Audits for GCNs	Environment Agency (Bob Lee)	Wildlife Trusts, Pondlife Project	U	•	•	•

English Nature are the 'Lead Authority' for biodiversity issues relating to Great Crested Newts, but the Environment Agency will assist in implementing the Biodiversity Action Plan and get involved in Local Biodiversity Audits for this and a number of other water-related species.

#### ISSUE 5 INVASIVE NON-NATIVE PEST SPECIES

Many foreign plants were introduced to Britain in the 19th century, mainly for ornamental reasons. A few grow very strongly in the wild and have come to dominate riverbanks. Japanese knotweed and Himalayan balsam are widespread in the area, particularly where land has been disturbed. They out compete native plant communities and can aggravate problems of bank erosion. Giant hogweed, whose sap causes severe irritation and painful blistering, is a problem in certain areas and is controlled as part of an agency-wide spraying programme.

### **Update of Actions since February 1998**

The Sankey Now River Valley Initiative have carried out a conservation Assets Register of the Sankey Catchment with funding from the Agency. As part of this consultants have identified and mapped sites where these alien invasive species occur along the Sankey catchment.

Action	Respo	nsibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Investigate the extent of Japanese knotweed, Himalayan balsam and Giant hogweed in the area	Environment Agency (Bob Lee)	LAs, Ranger Services, Landowners	U	•	•	
<b>2.</b> Carry out appropriate control programme	Environment Agency	LAs, Ranger Services, Landowners	U		•	

# ISSUE 6 THE NEED FOR CONTINUED HABITAT IMPROVEMENT AND PROTECTION OF EXISTING WILDLIFE HABITATS TO CONSERVE AND ENHANCE BIODIVERSITY

When the UK signed the Convention on Biodiversity in 1992 at the Earth Summit it committed-itself, amongst other things, to protect ecosystems and natural habitats and maintain viable populations of species. One of the means of doing this was to develop a national strategy which was endorsed by the Government in 1996. So far action plans have been drawn up for a short list of 116 of the most threatened and declining species and 14 key habitats. A middle list and a long list were also produced. To be implemented successfully these national targets will be translated into effective action at a local level through Local Biodiversity Action Plans (LBAPS).

A Merseyside Biodiversity Action Group has now been set up and a local record centre is proposed to promote biodiversity in Cheshire, Wirral, Merseyside, Halton and Warrington. Also a draft development plan has now been produced.

The Agency provided sponsorship for the Countdown 98 Programme. The Countdown Programme is a biodiversity audit with local action plans for the conservation of the wildlife of the Cheshire Region and is compiled with partners, by the Cheshire Wildlife Trust.

Species on the short list of globally threatened or declining species in UK Biodiversity Steering Group Report 1995 known to occur in the LEAP area include:

<u>Water Voles</u> – The Agency is the contact point for this flagship species. A Water Vole Handbook has been produced by the partnership of English Nature, the Environment Agency and the Wildlife Conservation Research Unit.

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

Relevant key habitats for which costed action plans will be drawn up in the next three years include canals, ponds and lodges, unimproved grassland, woodland and hedges.

#### **Update of Actions since February 1998**

The Sankey Now River Valley Initiative have carried out a conservation Assets Register of the Sankey Catchment with funding from the Agency. As part of this consultants have carried out a preliminary water vole survey which identified water vole activity on the Sankey in Warrington, Clipsley, Union Bank, and Cloghe brooks. This information will impact on flood defence maintenance procedures in this area. Surveys were also conducted on Sankey and Whittle Brooks in the summer of 1998 in collaboration with Cheshire Wildlife Trust and the local ranger service.

The Agency has contributed funds to the Clear Glaze Partnership for a water vole survey on the River Glaze (July 1999) and for training volunteers. Results may influence the maintenance regime and highlight target areas to carry out habitat improvement.

Action	Respon	sibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Contribute to the development of Biodiversity initiatives eg LBAPs, Species Action Plans, Local Biodiversity Audits, Species Recovery Programmes	Local Authorities, Wildlife Trusts, JCAS, EN, RSPB, specialist local groups	Environment Agency (A R Lee)	R(a)	. •	•	•
2. Further the conservation of important species and habitats, (eg Newts, water voles, bats) 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 and monitor the distribution and status of the Great Crested Newt and water vole within the study area in	Environment Agency, Wildlife Trusts, GMEU	EN, Local specialist groups, Local Authorities Cheshire Agenda 21	U(c)		= 3	
order to protect and enhance populations						

Action	Respon	sibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
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, RSPB, National Trust, CPRE, Merseyside Museums, Cheshire Econet, CLA, NFU, BTCV	20	•	•	•

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.

# 4.5 Managing our Freshwater Fisheries

#### ISSUE 7 LACK OF SUSTAINABLE FISH POPULATIONS

Water quality within the Sankey/Glaze area is poor and the watercourses are unable to sustain coarse fish populations. Improvements in water quality will therefore increase the available habitat suitable for fish. Such improvements are routinely monitored by the Agency.

### **Update of Actions since February 1998**

A routine fisheries survey took place during summer 1999.

No stocking has taken place during 1998.

Action	Respo	onsibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Stock with coarse fish as water quality improves sufficiently to maintain coarse fish populations	Environment Agency (Bob Lee)	Angling Clubs	U(i)	•		

# ISSUE 8 LACK OF KNOWLEDGE OF THE EXTENT OF USE OF WOOLSTON FISH PASS BY MIGRATING FISH

A fish pass has been included as part of the new Woolston Weir. No work has been undertaken to assess its efficiency. In addition there is an inherent problem with blockages caused by debris.

### **Update of Actions since February 1998**

The Manchester Ship Canal Company have constructed a debris deflector along with gates and a penstock system. They have now attached the debris deflector and gates to Woolston fish pass.

Action	Respo	onsibility	Total	1 <b>9</b> 99/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Install a debris deflector to prevent blockages	Manchester Ship Canal Company	Environment Agency	U(i)	•		
2. Install a fish trap to enable the assessment of the pass efficiency	Environment Agency	Manchester Ship Canal Company	U(i)	•		

# 4.6 Delivering Integrated River Basin Management

ISSUE 9 ADVERSE IMPACT OF CONTAMINATED SURFACE WATER DISCHARGES ON SURFACE WATER QUALITY

The rectification of wrong connections is undertaken by Local Authorities as Agents for North West Water Limited (NWW Ltd). NWW Ltd make available funds for the correction of the problems, however, this work is not part of the companies capital programme and only when funds are available can the priority work be undertaken

A national promotional Contaminated Surface Water (CSW) campaign has been launched which will target prevention.

One of the Clear Glaze Partnerships main projects in 1999 is to raise local public awareness of the problem of cross connections in conjunction with Wigan MBC and the Agency.

## **Update of Actions since February 1998**

At present the Agency has no nationally co-ordinated or consistent system for the investigation/recording, reporting and remediation of wrong connections. To redress this a project has been undertaken that will assist in developing a more efficient methodology. A report on this initial project, which looked at the extent and number of CSW problems in each region, has now been produced.

The Environment Agency in the North West Region has compiled a list of the worst 60 identified contaminated discharges. These have now been ranked on their environmental impact, and prioritised on how significant an effect the discharge has on the local watercourse. The remaining and newly identified wrong connections will be prioritised for inclusion in Asset Management Plan 3 (AMP3). Of the identified CSWs, 16 are within the Sankey Catchment and 6 in the Glaze Catchment.

A sum of money has been secured within NWW's capital expenditure to address the highest priority wrong connections in the North West region. This work will be undertaken in two phases, one from March 1998 to December 1998, the second from January 1999 to December 1999. Work on a number of the high priority CSWs has started at:

The Dale, Warrington
Bradleigh Road, Newton le Willows
Mill Lane Sutton, St Helens
Wednesbury Drive, Warrington
Merton Bank Road North, St Helens
Above Warwick Ave, Newton, St Helens
Ellenbrook, Boothstown

Action	Respon	sibility	Total	1999/	2000/	Future
	. Lead	Other	cost (£K)	2000	2001	
1. Identification and prioritisation of wrong connection problems	Environment Agency (R Lamming, S Lever)	Local Authority	R	•	•	•
2. Correction of wrong connections	NWW Ltd	Local Authority, house-holders, site owners	U	•		
Phase Two						

# ISSUE 10 ADVERSE IMPACT FROM OVERFLOWS ON THE SEWERAGE NETWORKS ON SURFACE WATER QUALITY

The increase in residential and commercial development over recent years has resulted in increased flows in the sewerage network. In older systems there may be inadequate sewer capacity for the volume of effluent. Problems with blockages in the drains can also 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. As part of AMP3 the Environment Agency has identified further problem areas that will be proposed for improvement from the year 2000.

#### **Update of Actions since February 1998**

Prioritisation of these overflows has been undertaken by the Agency and included consultation with Local Authorities on the problem overflows.

On Millingford Brook the Urban Pollution Management (UPM) methodology was used for assessing sewer overflow problems and developing solutions which minimise the impact on aquatic ecosystems. Work to address these overflows is currently being carried out and will be completed by March 2000, the final year of the AMP2 programme. In conjunction with NWW, UPM work is also underway on Hey Brook and Borsdane Brook. This is part of a continuous improvement strategy.

Construction work on the unsatisfactory overflows in the West Salford drainage area, including overflows to Shaw Brook, Astley Brook and Ellen Brook, will start in 1999. The work should be completed by March 2000. The Urban Pollution Management procedure was used to provide a solution to improve the overflows and reduce the impact on water quality.

Action	Responsibility		Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Reduce the number of unsatisfactory combined sewer overflows	NWW Ltd		U	•	•	•
2. Improve status of overflows on Millingford Brook	NWW Ltd	Environment Agency	8(a)	•		
3. Improve status of overflows on Shaw Brook and tributaries	NWW Ltd	Environment Agency	6(a)	•		

(a) Expenditure required for investigating and prioritising unsatisfactory overflows.

#### ISSUE 11 ADVERSE IMPACT OF DISCHARGES FROM WASTEWATER TREATMENT WORKS (WwTW)

A number of Wastewater Treatment Works (WwTWs) have a significant impact on water quality, particularly on the Glaze and its tributaries. NWW Ltd has proposed improvements to some of the treatment works in the area. Westhoughton WwTW and Leigh WwTW have had extensive work carried out on site and in the near future work on the inlet overflows at Irlam and Worsley will be undertaken.

#### **Update of Actions since February 1998**

Monitoring of watercourses downstream of Westhoughton WwTW and Leigh WwTW has indicated that water quality has improved both chemically and biologically as reported through the General Quality Assessment scheme. However, additional improvements are perceived to be required before the long term objectives of the receiving waters are met.

The capital project to improve Worsley WwTW is ongoing and will be progressed in two stages. The first stage will incorporate rebuilding of the inlet works, new CSO arrangements, new storm tanks and a new pumping station. This will be completed in 1999. The second stage will involve the provision of a tertiary treatment plant in addition to the existing primary and secondary treatment facilities. This will be completed by 31st March 2000.

Assessing the impact of all the NWW Ltd wastewater treatment works in the LEAP area has been undertaken as part of the procedure for identifying works which are to be put forward for AMP3 expenditure. The initial prioritisation of the schemes is completed and included environmental benefit assessments. The treatment works in the Sankey/Glaze LEAP area which have been proposed for expenditure are St. Helens, Leigh, Tyldesley, Westhoughton, Glazebury and Irlam. Improved effluent quality at St Helens WwTW and the clean up of contaminated land (See ISSUE 23) could result in water quality improvements of up to 13 kilometres of Sankey Brook.

Under the Urban Wastewater Treatment Directive two watercourses have been identified as being eutrophic or may become eutrophic in the near future. These watercourses are Pennington Brook/Glaze Brook and Hall Lee Brook/Westleigh Brook. The qualifying discharges for these proposed sensitive areas are Leigh WwTW, Tyldesley WwTW and Westhoughton WwTW respectively. A four year monitoring programme has been set up to assess the impact of these works on the trophic status of the proposed sensitive areas. If these areas are designated as sensitive in the next round of designations in 2001, NWW Ltd will be required to install nutrient removal at these qualifying works.

Action	Responsibility		Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Evaluate impact of improvements works at Westhoughton and Leigh WwTW	Environment Agency (R Lamming, S Lever)	Local Authority	U	•		
2. Assess the impact of WwTW on rivers failing the RQO or an EU Directive	Environment Agency (S C Lever) WQ Planner		R	•	•	•
3. Prioritise works needing improvements in AMP 3 using environmental benefit assessment	Environment Agency (S C Lever) WQ Planner		R	•		
4. Continue monitoring impact of Westhoughton, Tyldesley and Leigh WwTW for eutrophic status of the receiving watercourses	Environment Agency (R Lamming, S Lever)		U	•		
5. Worsley WwTW improvement to be carried out	NWW Ltd	Environment Agency (R Lamming, S Lever)	U	•		

# ISSUE 12 CONTAMINATED RUN-OFF FROM SPOIL HEAPS AND DISCHARGES FROM ABANDONED MINES CAUSING POLLUTION TO SURFACE AND GROUNDWATER

Currently, landowners and former operators of abandoned mines causing pollution are exempt from key legislative controls and are not liable for clean up costs. The Environment Act, 1995, introduced improved measures to deal with abandoned mines in the future including The Mines (Notice of Abandonment) Regulations 1998.

A National table of sites has been produced and money may be made available to remediate some of them. A study of these sites is to be undertaken to assess the impact of the mine drainage and how to rectify the situation. There is currently a national database that ranks and prioritises identified abandoned mine workings for restoration. Spoil heaps are not included in the National scheme but an assessment of their impact is to be undertaken for future use.

### **Update of Actions since February 1998**

An application to DETR has been successfully made for additional funds for a project to identify all types of abandoned mines in the region which currently impact or are likely to impact the water environment. A percentage of this funding will be made available for the Sankey/Glaze LEAP area.

The funding will allow the impact of other abandoned mines, for example impact on water quality in Hockery Brook, to be assessed, ranked and prioritised. The 12 month sampling programme for Hockery Brook started in February 1999.

Planning permission for redevelopment of the spoil heaps at Astley Green has been granted. Work has commenced on site which involves a landfill operation and a waste management licence was issued in October 1998. Initial capping of the spoil heaps is due to commence in spring 1999. Discussions regarding restoration works are currently being progressed, but will result in water quality improvements to the surrounding watercourses. A Consent to Discharge has been issued for contaminated site drainage while the work is being carried out.

Monitoring of the Discharges from spoil heaps to controlled waters at the Sutton Manor site has shown the quality of the discharges to have improved, and as a result, one of the three Consents to Discharge held by the site owner (St Helens MBC) has been revoked.

No progress has been made in respect of the Point Source Mine Water discharge to Clipsley Brook at Haydock Sough.

The planning application for the redevelopment of spoil heaps at Cutacre has been deferred. A decision is awaited from the Secretary of State.

In addition to spoil heaps, funding for the restoration of Bold, Sutton Manor and Clock Face collieries has been secured. Bold Colliery, as part of a Millennium project, will be restored for public open space and to optimise the full recreation and conservation potential of the site. Contaminated run-off will be reduced through a new site drainage network incorporating reed beds and weirs and also through woodland planting. Work to be completed by March 2000.

Surface water run-off from Bickershaw Colliery spoil heaps currently causes a pollution problem with ochre going to Common Lane Brook and into Pennington Flash. The initial remediation work has now been completed.

Action	Responsibility		Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Assess the impact of abandoned mine discharges	Environment Agency (R Lamming)		R	•	•	•
2. Restoration and redevelopment of spoil heaps	Developer, Owner	Environment Agency (R Lamming)	R	•	•	•
3. Restoration of Collieries	Owners, LAs	Environment Agency (R Lamming)	U		•	•

#### ISSUE 13 IMPACT FROM INDUSTRIAL AND TRADING ESTATES DRAINAGE ON SURFACE WATER

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

This issue can partly be considered in relation to ISSUE 9 on the impact of contaminated surface water discharges on surface water quality. Discharges that emanate from industrial estates can have an impact on water quality.

#### **Update of Actions since February 1998**

The regional priority list of contaminated surface waters contains a number of discharges which are derived from industrial estates in the Sankey/Glaze LEAP area. In addition to these a number of individual sites have been visited and pollution prevention advice has been given. This is an ongoing process which has resulted in many incorrect connections such as vehicle wash draining to surface water being rectified.

Sites on the priority list for wrong connection investigation/remediation are:

Haydock Lane North Reginald Road Industrial Estate Sutton Industrial Estate

Due to changes of unit ownership further investigation on the impact on water quality will be looked at before committing to any engineering solution.

There are many other problems associated with industrial estates relating to accidents, negligence, poor storage and the mishandling of oil, chemicals and waste. These problems are identified through ongoing investigation and then rectified, for example, the successful elimination of the long-standing contamination from intermittent oil pollution in Hardshaw Brook. This and improvements in the upstream watercourse has resulted in the water quality chemical classification of this brook (General Quality Assessment scheme) improving from class F (bad) in 1995 to class D (fair) in 1997.

Site improvement and pollution prevention has been promoted through the posting of an Environment Agency produced Pollution Prevention Action Pack to occupiers of many of the Sankey/Glaze LEAP area industrial estates. The 'Site Right' pack is designed as an advisory pack offering both practical measures and ideas to help industrial sites implement effective measures principally for the prevention of water pollution.

Action	Responsibility		Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Undertake Industrial site and estate surveys, visit units and identify drainage problems a) Sutton	Environment Agency (R Lamming)		R	•		
2. Promote site improvement and pollution prevention	Environment Agency (R Lamming)		R	•	•	•
3. Rectify identified problems	Owners, LAs, NWW Ltd		U			
a) Haydock b) Reginald Road			U	•		

# ISSUE 14 ADVERSE IMPACT OF URBAN RUN-OFF AND DRAINAGE FROM ROADS AND MOTORWAYS ON SURFACE WATER

A number of major roads cross the area covered by this plan. On some watercourses there is an impact from road drainage, but the effect of the intermittent discharges on other 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 had been easily available the recent pollution of the Mersey following a road accident could have been reduced or prevented if the oil was intercepted at the outfall.

#### **Update of Actions since February 1998**

A project has been proposed, for which funding is currently being sought, to develop a portable database of all major trunk road and motorway drainage outfalls within the Sankey/Glaze LEAP area. This will enable field officers to quickly identify the precise destination and consequences of pollutants entering a drainage system following a pollution incident involving the road drainage network. The database will also allow new drainage infrastructure, such as interceptors and penstocks, on many new and substantially altered road drainage systems to be documented in a way which could be easily and immediately accessed, often in emergency situations. For the database to be utilised to its full potential, further information on drainage outfalls for major roads needs to be collected. This will allow problem areas where drainage controls are inadequate to be identified and prioritised for improvement.

Action	Responsibility		Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Collect information on drainage outfalls for major roads	Environment Agency (R Lamming)		R		,	•
2. Identify watercourses where problems from road drainage occur	Environment Agency (R Lamming)		R	•	•	•
3. Develop a database of drainage outfalls	Environment Agency (S C Lever)		U			•

# ISSUE 15 DIFFUSE DISCHARGES CAUSING POLLUTION TO BOTH SURFACE AND GROUNDWATER

In many cases water quality problems can be traced to a point source or to a known pollutant. However, on some lengths of watercourse there is biological evidence of pollution which is not picked up by chemical sampling, or chemical sampling can indicate a type of pollutant but the source is unknown or natural.

Diffuse pollution can occur as a result of agricultural practices such as crop spraying, fertilisers and general agricultural practices. These pollutants can enter a watercourse over a period of time as they slowly leach through the ground and are washed off by the rain. The pollutant then gradually accumulates. In many cases they cannot be detected as the amount present is below the analytical detection limit.

Due to the difficulty and cost of investigating this problem, it is not envisaged that this issue can be pursued within the time period of this LEAP. It remains in the plan incase resources become available.

## ISSUE 16 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	Respo	nsibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Identify and gather information on all culverts suitable to be opened up as opportunity arises. Section 105 Investigation (a)	Environment Agency (Phil Younge), LAs	Developers, Owners	U	•	•	
2. Install debris screens and telemetry as appropriate on culvert	Environment Agency (Phil Younge)		266	•	•	126
entries. (b) Telemetry installation on Windle Bk at Rivington Rd			10			
3. Reduce flows into culverts by attenuating flows, storing floodwaters or providing alternative	Environment Agency, NWW Ltd, Owner, LAs	Developer, Owner	U	•	•	•
routes for flood flows						

The Agency's policy is that culverts should be opened up and restored to open river corridors wherever possible. (Environment Agency National Policy Documents on Culverts were published in May 1999).

- (a) Section 105 investigation of Middle and Lower Mersey, which includes Sankey and Glaze catchments is programmed from April 1999 to September 2000
- (b) Regional Telemetry Project
  A number of operational and flood monitoring sites requiring telemetry were previously identified within the LEAP area as part of this project. However, following the Bye Report, on the 1998 Easter Flooding, and the replacement of the existing Flood Warning Telemetry system over the next two years, it is likely these sites will be reviewed.

Telemetry has also been planned for the trash screen to Down Brook on the culvert under Ashton-in-Makerfield town centre.

# ISSUE 17 MAINTENANCE PROBLEMS CAUSED BY UNSTABLE BANKS

Erosion and bank slips are natural processes that can create variety and diversity in bank profiles as well as providing habitats for plants and wildlife. However, where these processes reduce flood defence standards regular maintenance works are required. Additionally, slipped materials may be washed downstream, contributing to shoals in areas of deposition, increasing flood risk in urban areas.

Action	Respo	nsibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Reduce slopes and support banks in danger of slipping. (a)	Owners	Environment Agency	U	•	•	•
2. Investigate and implement more environmentally sensitive maintenance methods	Environment Agency (Phil Younge)	Owners	U	•	•	•
3. Carry out works to return channels to more natural section. (b)	Owners, LA's. Environment Agency (Phil Younge)		U	•	•	•

As part of our national standards of service we regularly review our maintenance regime and will discontinue works in any areas where the watercourse has stabilised.

We will continue to identify areas where there is a need to protect banks from erosion.

- (a) Subject to Agency consent and consideration of environmental impacts, on Main Rivers.
- (b) The River Rehabilitation Schemes at Whittle Brook and Padgate Brook are examples of works carried out to return watercourses to more natural sections. Post-project appraisals of the schemes indicate substantial ecological improvements in the two years since completion of the works.

The Sankey Brook Improvement Scheme at an estimated cost of £421,000 is required to alleviate the effects of erosion and bank slips in a semi-urban area.

The Integrated River Basin Management Project takes the Sankey as a pilot catchment for multifunctional data analysis. It compiles data from all Agency functions within a GIS computer model. The model examines interactions between the functional datasets, and suggests enhanced management options. For example, by defining different criteria for river rehabilitation from each Agency function and producing a suite of the most suitable sites for rehabilitation.

The model is now complete and available for use, a demonstration CD-Rom is also available which describes the project in detail. For more information please contact the project manager: Jim Walker, (01925 653999, ext. 2774), e-mail jim.walker@environment-agency.gov.uk

# ISSUE 18 POOR ACCESS TO WATERCOURSES FOR MAINTENANCE WORKS

Poor access to stretches of watercourse can impede regular maintenance and emergency works. 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	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Two ramps are proposed in the Leigh area to provide access to watercourses for maintenance and emergency works. (a)	Environment Agency (Phil Younge)	LA, Owner	85	•		

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

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

In July 1997 the Agency issued a Policy Document on Policy and Practice for the Protection of Floodplains which has a bearing on this issue.

(a) Within the LEAP Area we have identified two sites in Leigh at Widdows Street and Leigh Spinners, Park Lane, on Bedford Brook. Construction of these access ramps as part of the Urban Channel Access Scheme is programmed for 1999/2000.

Sankey Valley Asset Survey has identified a number of sites where access could be improved.

## ISSUE 19 IMPACT OF RESIDUAL EFFECTS OF MINING SUBSIDENCE ON FLOOD RISK

Extensive mining activities in the past has left a legacy of deepened and regraded watercourses. These must be maintained to continue existing standards of flood protection and land drainage. Localised subsidence depressions have been allowed to flood or require pumping to protect land and property.

As part of our core duties we will continue to operate our existing land drainage pumping stations within the LEAP area. The recent completion of the Bedford Brook Pumping Station Improvements Scheme has improved flood protection in the Leigh area. Works to the pumping mains at the Jennets Lane pumping station are programmed during 1999/2000.

Action			1	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Review maintenance regime and discontinue where watercourses have stabilised	Environment Agency (Phil Younge)		U	•	•	
2. Investigate and implement more environmentally sensitive protection measures, returning channels to more natural sections	Environment Agency (Phil Younge)		U	•	•	
3. Proposed Pennington Brook Improvement Works. (a)	Environment Agency (Phil Younge) Coal Authority	Wigan MBC	U	•	•	

(a) Works were previously proposed to improve defences to Kirkham Road. However Agency discussions with the Coal Authority, who will fund the works, have not progressed further.

## ISSUE 20 SILTATION CAUSING FLOOD RISK

Sand and silt is washed into the upper reaches of watercourses and collects forming shoals in the lower urban reaches. In tidal zones sand and silt build up, blocking flap valves and obstructing river channels. The Agency through its programme of regular maintenance works clears natural silt traps and tidal siltation in order to prevent flooding.

Action	Responsibility		Total cost	1999/ 2000	2000/ 2001	Future
	Lead	Other	(£K)	2000	2001	
1. Identify appropriate locations to construct silt traps to catch sand and silt (a)	Environment Agency		U	•	•	
2. Identify and control sources of sand/silt entering watercourses (b)	Environment Agency, LAs	LAs, Owners	U	•	•	i.

- (a) No progress on this however a number of locations prone to siltation and therefore ideal sites for Silt traps have been identified in the past.
- (b) The Agency provided funding to the Sankey Now River Valley initiative to carry out Conservation Assets Register of the Sankey catchment. As part of this investigation the consultants carried out a River Habitat Survey that will provide useful information on river activity, erosion and deposition in the catchment.

Since the last review desilting works were carried out on the following watercourses within the LEAP area: Whitehead Brook and Rainford Brook.

#### ISSUE 21 LACK OF WATER ASSOCIATED RECREATION AND AMENITY SITES

It was not feasible for the Environment Agency to carry out a survey of locations and demands for water based recreation due to the current lack of funding and large scope of the project. The issue has therefore been re-titled to identify where improvements for public access to watercourses are necessary.

# Re-titled LACK OF AWARENESS AND POOR ACCESS TO WATERCOURSES FOR RECREATIONAL ACTIVITIES

Rivers, stillwaters and other watercourses represent some of the few natural features found in built up areas and are an excellent resource for outdoor recreation. Poor access to such features can restrict both informal and formal recreational pursuits including walking, cycling, horseriding, angling, canoeing and rowing.

When discussing the opportunities for the creation, extension and improvement of footpaths and increased access areas, consideration should be given to the possibility of disturbing wildlife and livestock, and the possibility of easier access for trespassers and flytippers.

Funding applications have been made in conjunction with the Sankey Now River Valley Initiative to implement improvements to the following amenity sites:

- Warrington/St Helens Cycleway.
- Carr Mill Dam.
- Newton Common Lock.
- Land at rear of Baxters Lane, Peasley Cross.

Also, the Agency has co-funded interpretive signage within the Sankey Valley Park and commissioned a Professional Video to promote the wider enjoyment of amenities on the Sankey Catchment.

The Clear Glaze Partnership has been involved in two main areas:

Chanters Valley Recreational Park: Opening up of 500 metres of park adjacent to watercourse in association with Atherton Environmental Projects and the Groundwork Trust. Officially opened by the Mayor on 27 January 1999.

Glazebrook Trail: looking into the feasibility of improving the trail which runs from the Manchester Ship Canal to Pennington Flash. Footpaths were improved in 1998 and the work will continue. Access for the disabled with fishing platforms and information boards was started in December 1998 and is due for completion spring 1999. The Partnership has completed a Rights of Way feasibility survey for the Glazebrook Trail and plans are being drawn for implementation in 2000/2001.

Action	Respo	nsibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Identify where improvements for public access to watercourses are necessary for recreation, including water based recreation such as canoeing and angling	Sankey Now, Clear Glaze (Mersey Basin Campaign RVI's)	Environment Agency, (Bob Lee), LAs, Sports Council	U(a)	•		
2. Encourage the creation, extension and linking of linear parks, footpaths, cyclepaths and bridleways next to waterbodies, including	Sankey Now, Clear Glaze	Environment Agency (Bob Lee), LAs, Sports Council	U	•	•	•
those in disrepair						
3. Increase public awareness of the existence and recreational value of watercourses, through signage and interpretation panels alongside footpaths and on bridge crossings	Sankey Now, Clear Glaze	Environment Agency, LAs, Sports Council	U	•		•

<sup>(</sup>a) The Agency is currently holding discussions with the Mersey Basin Campaign to identify target catchments to resolve this issue.

# ISSUE 22 THE PRESENCE OF BLUE/GREEN ALGAE IN PENNINGTON FLASH LEADING TO PUBLIC HEALTH AND AMENITY PROBLEMS

Pennington Flash is of high amenity value however problems of nutrient enrichment have lead to the periodic growth of Blue/Green algae. This can result in a pea green discolouration of the water which may be poisonous to humans and pets.

# **Update of Actions since February 1998**

As a result of blue-green algal blooms on Pennington Flash, the Environment Agency set up a subgroup to co-ordinate actions laid out in this LEAP. Surveys commenced in October 1996 to assess current nutrient loads entering and leaving the Flash. Sampling was also undertaken by our Marine & Special Projects function on a regular basis. The review of the data collected from the surveys revealed that the Flash is of fair water quality. High levels of algae were recorded but they are not currently present at nuisance levels. Concentrations of the principle nutrients (nitrogen, phosphorus and silica) are all elevated and the Flash could be considered nutrient rich.

Monitoring equipment positioned in the Flash has, since October 1997, provided continuous water quality data. For 1998, all the guidelines showed the expected seasonal pattern and at values typical for the Flash. During 1999, the Agency intend to reposition the equipment in the deepest part of the Flash to help determine whether the Flash stratifies during summer months and the extent of any lack of oxygen at depth. Data collected will be added to an algal model. The data collected previously and run through the algal model provided management options for restoration as follows:

- Flushing with phosphorus-stripped water. This would be very difficult to carry out.
- Sediment removal. This option is not likely to be feasible due to cost and impracticality.

Another option for improvement would be to create a marginal habitat.

The samples of sediment taken by the Institute of Freshwater Ecology (IFE) found that the Flash is accumulating phosphorus and up to a quarter of the phosphorus may be remobilisable and therefore a potential source of nutrients to the Flash. IFE conclude that this pool of phosphorus has important implications for any remedial work which may be undertaken to improve water quality. In the short term, any reduction in phosphorus input is likely to be off-set by recycling from sediments.

Farm surveys are to be carried out upstream of Pennington Flash along the Hey Brook corridor in 1999.

<b>A</b> ction	Responsibility		Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
1. Investigate the reasons for the nutrient enrichment	Environment Agency		υ	•		
2. Formulate an action plan to combat the problem	Environment Agency	NWW Ltd, LAs, Landowner	U	•		
3. Pursue the recommendations	Environment Agency Landowner	NWW Ltd, LAs,	U	•	•	

# 4.7 Conserving the Land

## ISSUE 23 IMPACT OF CONTAMINATED LAND ON THE ENVIRONMENT

Redevelopment of land provides an opportunity to remediate contaminated sites and the Agency works closely with Local Authorities, developers, consultants and other organisations to ensure that where possible the environment is protected and improved by redevelopment. On some contaminated sites habitats have developed, which need careful consideration and protection as part of any proposed remediation work. However, whilst most sites can be addressed by redevelopment, in some cases serious pollution is occurring and a more pro-active approach is required.

Section 57 of the Environment Act 1995 contains important new provisions on the regulation of contaminated land in England, Wales and Scotland. It inserts a new part IIA into the Environmental Protection Act 1990 and places a duty on local authorities to inspect their areas for the purposes of identifying land which falls within a new statutory definition of contaminated land. Land formally designated as 'contaminated land' is subject to a number of provisions intended to ensure unacceptable risks to health and the environment are properly controlled. Both local authorities and the Environment Agency have an important role to play in achieving this objective.

The type and degree of harm to be taken into account, what is to be regarded as 'significant' and how the remaining provisions of the legislation are to be discharged are to be set out in statutory guidance that is still being prepared. It is currently anticipated that regulations will come into force in December 1999. This will define certain sites as 'Special Sites' for which the Agency will have overall responsibility.

#### **UPDATE OF ACTIONS SINCE FEBRUARY 1998**

## Pilkington Properties, Haresfinch Burgy Banks

After many years of discussions and site investigations, remedial works funded by Pilkingtons was completed in June 1999. An interception trench with sewer connection has been installed which will prevent pollution of the adjacent Rainford Brook from leachate that had been flowing from the tip over the adjacent public footpath for many years. The Banks are a designated Site of community wildlife interest.

## Sutton & Sankey Brooks (Sites ABC)

These sites are known to be causing significant pollution of Sutton and Sankey Brooks. Risk Assessment and Feasibility reports have now been received from consultants following site investigations in 1997/8. The Agency has now strengthened its partnership with St. Helens MBC to carry forward the project and a joint application for funds from the Department for Transport and the Regions under the Supplementary Credit Approval Scheme has been successfully made. This will fund additional investigative works in the year 1999/2000 with a view to obtaining detailed proposals for remediation of the site in 2000/2001. The action (number 5) stated in the first Annual Review has been completed with the implementation of three/four additional sampling points on Sutton/Sankey Brooks in March 1998.

# Sankey Valley Industrial Estate

Major remediation works (funded by the Agency) were undertaken on part of the Industrial Estate in 1997/8. An additional site investigation has since been carried out, forming part of a feasibility study for the regeneration of the whole area. St Helens MBC are currently considering the options for redevelopment of the site and how these might be funded.

#### Former British Sidac site

Phase 2 of the remediation (funded by St Helens MBC) has now been completed and involved on-site treatment of contaminated material and capping of remaining areas. Monitoring points have been installed around the remaining area of contamination to monitor the effectiveness of the remediation prior to development of the site.

## Lord Street Acid Tar Lagoon

A site investigation and risk assessment carried out on behalf of Salford MBC was completed in 1998. The favoured remedial option is to cap the site, however, the situation is complicated by the fact that half the site is in private ownership. Further sampling of the River Glaze is being carried out at the Agency's request, in order, to fully evaluate whether this form of remediation will be effective.

#### **NEW ACTIONS SINCE FEBRUARY 1998**

The Agency has offered technical advice and guidance to developers and their agents on the investigation and where considered necessary, the remediation of 20 contaminated sites in the district. Examples include:

## Former Gas Holder, St Helens

Excavation and off site disposal of former gasholder base and its contents and contaminated perched groundwater, prior to backfilling with clean fill. The Agency commented on the investigation and agreed the clean up levels.

## Texaco Service Station, Warrington

The Agency was consulted with respect to the clean up of a former filling station. A soil vapour survey was followed by a site investigation. These identified areas of contamination that were later removed from site. The fuel lines and tanks were then filled with concrete.

## **POINT SOURCE DATABASE**

A project to compile an electronic database of known and suspected point sources of pollution, particularly from contaminated land sites has recently been completed by ENTEC. The project was managed by the Regional groundwater team, and will provide valuable information for identifying possible sites for inclusion under the forthcoming Contaminated Land Regulations.

## MERSEY & RED ROSE FOREST LANDFILL PROJECT

The Mersey Forest and Red Rose Forest are two of the twelve Community Forests in England. The aim of the above project was to devise a simple methodology for assessing landfill sites for suitability for becoming community forests. The project looked at 13 sites, including Red Quarry (SJ 520 920) in the Sankey Glaze LEAP area. Although the Agency was not involved financially, it provided significant information on the history of the sites concerned and officers were involved in some of the fieldwork. Trial plots of woodland have been planted on each of the sites and there is a continuing research project being carried out by the Liverpool Universities looking at how the trees cope with the site conditions including contamination and landfill gas influences.

## **MERSEY FOREST BROWNFIELD PROJECT**

This project is developing the methodology derived during the Mersey/Red Rose Forest landfill project\*. It is concentrated in certain areas where European objective 1 funding is available. The Agency is working in partnership with the Mersey Forest, and others, and has contributed £20,000 towards the match funding. Two sites in the Sankey Glaze (Cromdale Grove and Merton Bank South) are included in the work.

## \* To include derelict sites

Action	Respor	nsibility	Total	1999/	2000/	Future
	Lead	Other	cost (£K)	2000	2001	
Undertake detailed site investigations	Site Owners, Developers LAs	Environment Agency	U			•
2. Develop a database of sites	Environment Agency (Stewart Lever)	LAs	V			
3. Initiate and co-ordinate action on sites	Environment Agency (Stewart Lever)	LAs Landowners, Developers	R			110
4. Remediation of sites	LAs, Developers, Landowners		U			
5. Investigate and remediate Sites ABC, St Helens		LAs, Environment Agency	£3M†	£250K	£150K	
6. Mersey Forest Brownfield Project		Mersey Forest, Environment Agency	£280K		- 2	

<sup>†</sup> Present estimated cost of remediation over five year period.

## 4.8 Managing Waste

ISSUE 24 LITTER AND ILLEGAL TIPPING INTO WATERCOURSES CREATING MAINTENANCE AND AMENITY PROBLEMS

Retitled ILLEGAL WASTE DISPOSAL ACTIVITY ON LAND AND LITTER PROBLEMS IN WATERCOURSES

Waste Disposal activities are regulated as a core duty by the Environment Agency. Activities are regulated under a waste management licence or an exemption from such licensing. Waste, which is deposited on land without the benefit of a waste management licence or exemption from such licensing is illegal.

The illegal deposit of waste (or fly-tipping) on land can cause pollution of the environment including contamination of land or groundwater, or may result in harm to human health and a deterioration of public amenity.

As well as looking unsightly, rubbish in rivers can be a danger to wildlife, pets and waterside users. Debris can build up blocking the flow of water, especially in culverts and under bridges, increasing the risk of flooding to roads and property. The illegal deposit of waste is a particular problem in urban areas.

The Environment Agency Enforcement Teams investigate and take appropriate action against those responsible for the illegal deposit of waste. The Agency and Local Authorities work to a memorandum of understanding. Local Authorities undertake to remove waste tipped on public land. Under the memorandum of understanding the Environment Agency may remove hazardous waste which they consider to be a danger to the environment, or pose a harm to human health.

The Agency as part of its core duties will continue routine maintenance to remove debris from watercourses.

Littering on public land is assessed and removed if required by local authorities, although the Environment Agency will deal with incidents in watercourses.

The responsibility for both littering and flytipping on private land lies with the landowner. Action may be taken against private landowners by the Environment Agency or Local Authority depending on the circumstances of each specific case.

## Update of Actions since February 1998

The Environment Agency have yet to complete their investigations regarding a number of issues raised in the Sankey Valley Enforcement campaign. The decontamination work on site is ongoing.

Vista Road: The Local Authority in conjunction with the landowner of the land off Vista Road have carried out earth works which has significantly reduced the number of fly tipping incidents on Vista Road.

The Environment Agency in partnership with Wigan MBC and St Helens MBC have dealt with specific illegal activities in the catchment including enforcement action and regulation.

The Clear Glaze Partnership has been raising awareness of the issue of littering in watercourses and has held five clean up campaigns during 1998 involving both youth and community groups. The campaigns were held on Collier Brook, Chanters Brook, Westleigh Brook and the Bridgewater Canal.

The illegal burning of cable to recover non-ferrous metal is becoming a serious problem. Pollution of Air, Water, and Land on the LEAP area is occurring as a result of this activity.

The Agency together with other relevant bodies intends to implement measures to prevent this form of local environmental damage. A strategy is to be developed to address this problem in the Parr area of St. Helens where this problem is particularly severe.

Action	Responsibility		Total	1998/	1999/	2000/	2001/	Future
	Lead	Other	cost (£K)	1999	2000	2001	2002	
1. Local initiatives to prevent illegal tipping and littering of watercourses including the promotion of litter removal teams	Environment Agency, LA's, Owners, Water Watch, Stream Care (Phil Younge)		U	•	•	•	•	
2. Promote the control of unauthorised vehicular access to watercourses (a)	Environment Agency, Owners	LA's	U(ii)		•	•		-
3. Participate in initiatives to improve awareness and information on best practice and available disposal options, including press articles, leaflet campaigns and specific on-site campaigns	Environment Agency, Local Authorities	Tidy Britain Group, Water Watch, Stream Care, other voluntary groups, Landowners, Business groups and Residents						
4. Identify problem locations and appropriate remedial action	Environment Agency	Local Authorities		9 9 9 9 9 9				

(a) Improving access for maintenance and recreational activities (see ISSUE 13) increases opportunities for flytipping and illegal dumping. We will, therefore, actively encourage landowners to take measures to prevent vehicular access to watercourses.

As a core duty the Environment Agency will continue to promote awareness of waste legislation, recycling and other waste related issues.

Water Watch and Stream Care initiatives continue to be supported by the Agency.

## ISSUE 25 UNAUTHORISED WASTE ACTIVITIES: METAL RECYCLING SITES

Metal Recycling Sites (MRSs) are classified as recovery operations for the purpose of waste management licensing and are a source of benefit to the environment and sustainable development. Such sites are also recognised as potential sources of pollution. The application of the Waste Management Licensing (Amendment etc.) Regulations 1995, requires that such facilities operate in accordance with the requirements of a waste management licence or an exemption from such licensing.

A large number of MRSs are currently operating or applying to operate under a waste management licence or an exemption from such licensing. However, there are still MRSs operating without the benefit of a waste management licence or an exemption from such licensing. These sites may pose a pollution threat to the environment.

Two new exemptions for MRSs were granted in the Sankey catchment in 1998 and two applications are expected in the Glaze catchment.

Action	Responsibility		Total	1999/	2000/	Future
i	Lead	Other	cost (£K)	2000	2001	
1. Identify all unauthorised MRSs in the area	Environment Agency (R Lamming)	Operators	U			•
2. Regularise MRSs through the licensing or exemption system	Environment Agency (R Lamming)	Operators	U	14		

## **APPENDIX 1: 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 2: Asset Management Plans**

The Asset Management Plan (AMP) is the Water Service Company's programme of expenditure and investment.

The Environment Agency is involved in setting priorities for work necessary for environmental improvements. At present we are involved in the second plan, AMP2, for the years 1995 to 2000. Much of this five-year programme has been undertaken, or is being implemented.

A number of further schemes have been identified for improvement by the Agency, who are at present negotiating with North West Water on the priority projects for Asset Management Plan 3 (AMP3). This will follow on from the year 2000. Priority is most likely to be given to schemes necessary to maintain compliance with EC and domestic statutory obligations, such as the Urban Wastewater Treatment and Freshwater Fish Directives. The remaining proposed schemes are still open to negotiation, and changes in priority, according to what are deemed to be the most environmentally beneficial projects.

The schemes put forward are assessed on the actual and potential environmental benefits that would occur following improvements in water quality. The Environmental Benefit Assessments on the AMP3 submissions consider factors such as water quality, habitat, water uses for potable and industrial abstractions, and water based activities like angling, boating and canoeing. Comments from the public, Local Authorities, industry, fishing and canoeing clubs can also help in the decision making.

The Secretary of State for the Department of the Environment, Transport and the Regions (DETR) has indicated that all the proposed schemes should be done in AMP3, from 2000. Which work will be undertaken and when is still open for discussion and negotiation. A clearer indication of the scope of the AMP3 programme is expected during late 1999.

In the Sankey and Glaze LEAP area North West Water Ltd. wastewater treatment works at St Helens, Tildsley, Glazebury, Irlam and Leigh have been proposed for improvement in AMP3, as have over 90 combined sewer overflows (CSOs), which have been perceived as unsatisfactory.

St Helens WwTW – The water quality of Sankey Brook is very poor, GQA class F, due to the combined effects of leaching from contaminated land and the discharge from this works. The ammonia concentrations could effect the achievement of the long-term River Quality Objective.

Irlam and Glazebury WwTW – The upstream water quality and the organic load from these two works contribute to the poor water quality, GQA class E, of the River Glaze.

Tyldesley WwTW – Moss Brook fails the long-term River Quality Objective partially as a result of the discharge from this works.

Leigh WwTW – The works contributes to Pennington Brook and the River Glaze failing to achieve the River Quality Objective.

Improvement schemes for sewerage overflows that discharge to watercourses in St Helens, Eccleston, Warrington, Abram, Hindley, Leigh, Atherton and Boothstown have been proposed.

APPENDIX 3: What the Agency does and does not do

Aspect of the Environment	What the Agency is responsible for:	What the Agency is not responsible for*:
Sustainable Development	<ul> <li>Overall remit for the promotion of sustainability</li> <li>Supporting Local Agenda 21 initiatives</li> </ul>	Developing and promoting Local     Agenda 21 (LA21 Groups/LAs)
Waste Management	<ul> <li>Regulation of waste sites</li> <li>Advising Government regarding the National Waste Strategy</li> </ul>	<ul> <li>Planning for future waste disposal sites or incinerators (LAs)</li> <li>Local waste recycling and minimisation schemes (LAs)</li> <li>Collecting household waste (WCAs)</li> </ul>
Air Quality	Regulation of major industrial processes, for example, power stations	<ul> <li>Regulation of minor industrial processes (LAs)</li> <li>Controlling domestic smoke (LAs)</li> <li>Evaluating local air quality (LAs)</li> <li>Producing Air Quality Management Plans (LAs)</li> </ul>
Noise		Controlling noise nuisances (LAs)
Groundwater Quality	<ul> <li>Licensing discharges to groundwater</li> <li>Regulating special contaminated land sites</li> </ul>	<ul> <li>Compiling and maintaining contaminated land registers (tbd)</li> <li>Restoring contaminated land sites (land owners)</li> </ul>
Surface Water Quality	<ul><li>Licensing discharges to surface water</li><li>Responding to pollution incidents</li></ul>	Disposal of sewage (Water Companies)
Water Resources	Licensing groundwater and surface water abstractions	Drinking water quality and supply (DWI/Water Companies)
Flooding	<ul> <li>Maintenance to prevent fluvial flooding</li> <li>Advising on floodplain issues</li> <li>Regulating work affecting main rivers</li> </ul>	<ul> <li>Regular river maintenance, for example, litter removal and tree management (riparian owners)</li> <li>Regulating work affecting ordinary water courses (LAs)</li> <li>Surface water flooding from highways etc (LAs)</li> </ul>
Planning/ Development Control	Consultee on certain planning applications	<ul> <li>Determining planning applications (LAs)</li> <li>Producing Development Plans (LAs)</li> </ul>

Aspect of the Environment	What the Agency is responsible for:	What the Agency IS NOT responsible for*:
Contaminated Land	<ul> <li>When the relevant part of the Environment Act '95 is implemented:</li> <li>Advising Government and LAs on contaminated land</li> <li>Enforcement Authority for 'special sites'</li> </ul>	When the relevant part of the Environment Act '95 is implemented:  • Enforcement Authority for all contaminated land apart from 'special sites' (LAs)  • Identifying contaminated land (LAs)  • The cost of remediating contaminated land (person causing contamination or land owner)
Litter	Clearing litter to minimise flood risk on main rivers	Clearing litter on river banks and towpaths (riparian landowners)
Fisheries	<ul> <li>Maintaining, improving and developing fisheries</li> <li>Rod licensing</li> <li>Emergency fish rescues</li> <li>Monitoring fisheries quality</li> </ul>	<ul> <li>Commercial fisheries</li> <li>Regulating fish farms (MAFF)</li> </ul>
Recreation	<ul> <li>General remit to promote recreation on coastal and inland waters</li> <li>Agency owned land and structures</li> </ul>	General maintenance of footpaths and cycleways (land owner)
Navigation ,	<ul> <li>No responsibility in this area</li> <li>Water quality and conservation value of canals</li> </ul>	Day-to-day management of canals (BW and canal companies)
Archaeology	General remit to take into account archaeological issues when making decisions	<ul> <li>Responsible for management of historical structures and conservation areas (owner/EH/LAs)</li> <li>Production of archaeological Strategies (EH/LAs)</li> </ul>
Conservation	<ul> <li>General remit to promote nature conservation and biodiversity</li> <li>Lead organisation for certain BAP species</li> </ul>	<ul> <li>Designation of SSSIs (EN)</li> <li>Day-to-day management of SSSIS (land owner)</li> <li>Management of AONBs (CoCo)</li> </ul>

<sup>\*</sup> where appropriate the organisation that is responsible is shown in brackets.

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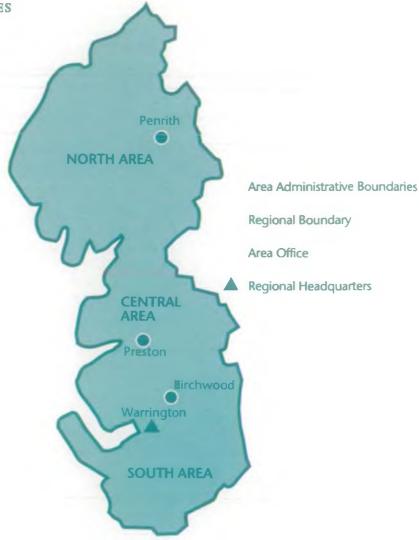
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ENVIRONMENT AGENCY GENERAL ENQUIRY LINE

0645 333 111

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

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