

Douglas LEAP First Annual Review  
November 2000.



# **Douglas Infrastructure showing Local Authority Boundaries**

## **KEY**

- Plan boundary
- Main river
- Canal
- ▨ Built up area
- - - Council boundary
- Motorway
- A road

**Douglas  
Local Environment  
Agency Plan - Action Plan  
Map 1**



**ENVIRONMENT  
AGENCY**

## **Foreword.**

The Douglas Local Environment Agency Plan is a significant step forward in achieving our vision for the future improvement and environmental management of the area. This First Annual Review informs the reader of progress made and successes achieved on environmental issues within the Douglas area since June 1999.

We aim to continue making improvements so local people can enjoy their environment now and in the future. We feel that these improvements can be best achieved in partnership with local people and organisations.

You are welcome to read and comment on this annual review.

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## **Implementation**

Implementation of this annual review is based on the 17 issues set out in the Consultation Report (published November 1998). Resulting from the consultation process these issues were carried forward to the Action Plan along with additional issues submitted by local authorities. We have changed issue titles to make it easier for the reader and achieve consistency in our reports.

## **Issues.**

The updated 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 recognises current priorities, both within the Agency and other organisations. The issues are not listed in any order of priority or importance.

# **List of Abbreviations used in tables.**

The Agency	-	Environment Agency.
LA	-	Local Authority.
RO	-	Riparian Owner.
MAFF	-	Ministry of Agriculture, Fisheries and Food.
NWW	-	North West Water Ltd.
RSPB	-	Royal Society for the Protection of Birds.
BW	-	British Waterways.
DETR	-	Department of Environment, Transport and the Regions.
CA	-	Coal Authority.
LWS Ltd	-	Lancashire Waste Services Ltd.
EN	-	English Nature.
WDA	-	Waste Disposal Authority.
LCC	-	Lancashire County Council.
FWAG	-	Farming Wildlife Advisory Group.
LWT	-	Lancashire Wildlife Trust.
GMAU	-	Greater Manchester Archaeology Unit.
CoA	-	Countryside Agency.
GWK	-	Groundwork Wigan and Chorley.
DaY RVI	-	Douglas and Yarrow Valley River Valley Initiative.
C	-	Capital Costs
R	-	Revenue Costs (work day costs).

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## **Issue 1: The need to improve rivers and riverbanks for the benefit of wildlife.**

Many of the rivers in the Douglas LEAP area have had their landscape and wildlife reduced by removing important habitats and reducing their landscape character. Rivers are places of great value to wildlife and fish and form very attractive landscape features. However many rivers in this area do not live up to this potential and they should be helped to realise it. We are committed to improving the rivers in this area to achieve their potential where opportunities arise and where funding is available. In order to ensure that resources are utilised effectively, we need to identify and prioritise those areas in need of most improvement.

The specific sites identified in the Consultation Report have not been added to or deleted. The following sites are examples of the types of problems found on the catchment. When Action 1 is completed priority sites will have been identified. Work will progress depending on available resources and agreement with landowners. We aim to improve the potential of these sites:

### **River Yarrow**

Eccleston - Bank erosion at sites both upstream and downstream of the B5250 (SD 515 179)

Below Croston Weir - gravel limited

Below Birkacre Weir - reasonable gravels, but compacted (SD 573 150)

Below Hallsworth Fold Farm - good gravel but compacted (SD 612 157)

Grundy's Lane, near Heath Charnock (SD 581 143) – lack of juvenile habitat

Common Bank – compacted gravels

### **River Douglas**

Between Parbold and Appley Bridge (SD 494 101 and SD 508 099). Bankside erosion and overhanging vegetation.

### **River Lostock**

Farington Moss. Bank erosion from cattle grazing (SD 534 233)

The Agency's River Landscape Assessment identified the following sections of river as in need of restoration or enhancement.

### **River Yarrow**

Chorley to John Wood, Home Farm to River Lostock.



## River Lostock

M61 Motorway to the River Douglas.

## River Douglas

Water Hayes to Gathurst, Parbold Village to Bank Hall. From Bank Hall to the River Ribble the management strategy was identified as restoration/enhancement.

The number of existing River Habitat Survey sites within this area are too few to use as a basis for selecting improvement sites. However, using fisheries, landscape and other Agency data we can identify potential sites and then carry out River Habitat Surveys in these areas to identify the most highly modified stretches of river that would be appropriate for restoration.

### Successes:

- Action 2:** We have carried out a tree planting exercise on the River Tawd. We are in consultation with Groundwork, English Nature, Lancashire Wildlife Trust, Douglas and Yarrow Valley RVI and Farming and Wildlife Advisory Group. And liaison with Lancashire County Council regarding the protection and enhancement of wildlife.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Use existing data on the river habitat survey, landscape assessment and fisheries surveys and where needed carry out further surveys to identify and prioritise stretches of rivers to be rehabilitated.	The Agency.														No further actions planned.
2. Carry out appropriate rehabilitation to increase habitat for fish, flora and fauna and reinforce landscape character in areas identified as a priority.	The Agency.	GWK RO, AC, FWAG, MAFF, DaY RVI.													No further actions planned.
3. Control and remove Japanese Knotweed and other alien species. Eradicate competition with native species.	The Agency.														

**Issue 2: The need to improve rivers and river banks for plants and animals.**

We are a funding partner of a water vole survey throughout the county of Lancashire. As part of the programme the Douglas catchment is scheduled to be surveyed during 2001.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1.Survey/ produce a management plan for water voles.	The Agency.									8 days.					Ecologist staff time

Key Performance Target:Contribute to BAPs for Agency led species.

Focus 2002 H: Safeguard the very best the North West has to offer.

### **Issue 3: Weirs that prevent fish swimming upstream.**

Several barriers, either full or partial, to fish migration have been identified including weirs, sluices and in river structures. These are having a direct influence on the success of fish reaching the upper parts of the area. Work needs to be carried out in conjunction with British Waterways, landowners and angling clubs to improve the access for fish to the higher reaches. For any weirs where redesign is carried out by the Agency, the incorporation of recreational passage for canoes and small vessels will be considered where this is appropriate. The resolution of this issue will largely depend on the availability of funding. Over the next five years we will seek funding from various sources, including European funds, in order to carry out the actions at each area identified as causing an obstruction, listed on the table below.

#### **Successes:**

- River Yarrow at Croston Weir – The full design has now been made, the scheme will be implemented when funding is available. This could possibly be in 2001/02.

The priorities for 2001/02 are River Yarrow at Croston Weir and River Lostock, Farington Weir.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
Incorporate works to remove obstructions in Agency / partnerwork or provide provision for fish passes in existing structures as following:	The Agency.	South Ribble B.C. B.W. NWW Ltd. Landowners. AC.													
1.River Yarrow at Croston Weir. This will also involve an assessment of the heritage value of the weir.															
2. River Yarrow, M61 Motorway bridge weirs.															Improvements planned for 01/02.
3. River Lostock, Farington Weir.															At design stage, awaiting funding.
Incorporate works to remove obstructions in Agency / partnerwork or provide provision for fish passes in existing structures as following:	The Agency.														
4.River Douglas, Gathurst Weir.	The Agency.	South Ribble B.C. NWW Ltd. Landowners.													At design stage, awaiting funding.
5. River Yarrow at Birkacre Weir.	The Agency.	South Ribble B.C. NWW Ltd. Landowners.													Need to wait for improvements at Croston Weir, before work can start at Birkacre Weir.

**Benefit:** Increased fisheries and recreational potential. There will also be an overall increase in the level of bio-diversity.

**Comments:** The co-operation of RO, BW, Angling Clubs and also the effects on flood defence will act as determining factors as well as the availability of funding in resolving this issue.

**Glossary:** BW – British Waterways, AC- Angling Clubs.

#### Issue 4: Opportunities to improve public access to riverbanks for recreation.

##### Background to the issue:

In the urban parts of the Douglas area, rivers and other water bodies represent one of the few natural features and are an excellent resource for recreation. However, in many areas within the Douglas catchment there is poor access to watercourses. This restricts both informal and formal recreation, including rowing, canoeing, walking, cycling, horse riding and angling. Where people cannot walk along rivers, they tend to become neglected and undervalued and are not therefore perceived to be a recreational asset. We are keen to support the promotion of recreation within the Douglas area. However, creating or extending footpaths and recreational access must be considered against the possibilities of disturbance to wildlife and livestock, conflicts between users and the increased threats from trespassers and flytippers.

Signage and interpretation material may help to discourage misuse of the watercourse, raise the aesthetic appeal and generally improve public perception, in addition to enhancing the local economy. There are sites already identified under other issues i.e. Wigan Flashes, Gillibrands, Chorley, the Leeds and Liverpool Canal, Rivington Reservoir and Birkacre Lodges.

##### Successes:

- **Action 2:** Improvements have been made on the River Lostock at the urban parks particularly at Lostock Country Park where there is now a pathway all through the park.
- **Action 3:** In Leyland small paths have been built adjacent to the watercourses.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Identify improvements for public access to watercourses necessary for recreation including water based recreation.	LAs	RO, BW, AC, CoA, GWK, BCU, IWA, Ramblers, Sport England, DaY RVI, NW Rowing Council, NWW Ltd, Wigan Canoe Club, The Agency.													
2. Implement improvements for public access to watercourses for recreation including water base recreation.	LAs	As above.													
3. Encourage the creation, extension and linking of linear parks, footpaths, cycleways and bridleways adjacent to water bodies, including those of active management or in disrepair.	LCC (Rights of Way), LA.	RO, GWK, Ramblers, Sport England, CoA, Local Parish Council, DaY RVI.													
4. Locate signage and interpretation boards along footpaths and on bridge crossings to promote public awareness.	LA, RO.	GWK, LWT, Ramblers, Sport England, CoA, Local Parish Council, DaY RVI, LCC (Rights of Way), The Agency.													
5. Identify footpath improvements required at Hundred End Gutter and repair.	LCC, Ramblers, RO.	The Agency.													Implement improvements in 01/02.
6. Identify and create footpaths at locations adjacent to the River Douglas where feasible e.g. from Eyes Lane to Wanes Blades Bridge and from Parbold Village to Wanes Blades Bridge.	LCC, Ramblers, RO.	The Agency.													Implement improvements in 01/02.

**Glossary:** RO – Riparian Owner, BW- British Waterways, CoA – Countryside Agency, AC – Angling Club, GWK – Groundwork, BCU – British Canoe Union, RHS – River Habitat Survey, IWA – Inland Waterways Association, Day RVI – Douglas and Yarrow River Valley Initiative, LWT – Lancashire Wildlife Trust.

**Benefits:** Identification and implementation of improvements for public access will improve recreational use of the water environment. The improvements will also allow the public more access to enjoy rivers. The encouragement, extension and creation of linear paths adjacent to water bodies will also increase recreational use and the public's perception of the watercourse. As will location of signage and interpretation boards along footpaths and on bridge crossings.

**Comment:** There are a number of factors which, combined, can act as a determining factor or influence the successful resolution of Issue 15. These include maintenance and security of waterside properties, co-operation / agreement of riparian owners and also funding availability. There is also the possibility that an increased level of tipping and littering may occur if easier access to watercourses is realised. It is also acknowledged that access structures can be visually obtrusive and also that increased access may increase disturbance to wildlife.

**Issue 5: The opportunity for environmental and recreational improvements arising from development at Gillibrands, Chorley.**

Additional development in the Gillibrands area of Chorley close to the River Yarrow, offers the potential to increase recreation adjacent to the river. We would seek to incorporate recreational and environmental features at the design stage, including maintaining the existing bankside and in-river habitats. In addition, we would also seek the placement of way-marked footpaths and interpretation boards. These would raise public awareness and perception of the value of the local environment.

We have also identified the area of the Yarrow at Common Bank for spawning gravel enhancement works. This could also be incorporated at the design and construction stages. The effect of these environmental and recreational design features would reduce any adverse environmental impacts of the development. The benefits would improve the landscape value of the area and could enhance the local economy by attracting inward investment. Gillibrands Link Road should start in spring 2000 scheduled for completion by autumn 2000. The house-building programme will commence after autumn 2000.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Assist and promote measures, including SUDS, in the design of the scheme.	Chorley B.C.	The Agency.													
2. Monitor any work that may have an adverse effect on the environment during the construction phase and seek to minimise adverse environmental impact.	The Agency. LA. Developer.														

**Progress:** Work on the remediation scheme has started. Provided this scheme is effective work on the link road should commence in Spring 2001.



## Issue 6: The promotion of further partnership working on Wigan Flashes for the benefit of people and wildlife.

The Flashes Complex (part of which is designated as a SSSI) has landscape value and rich bio-diversity. The Complex is located close to the area promoted as a cornerstone of Lancashire's industrial and mining heritage. Much investigation work has been carried out with Hey Brook Corridor Working Group and Wigan Metropolitan Borough Council in considering the current issues and the potential for realistic environmental enhancements. Wigan MBC plays a prominent role in the development of a strategic approach to the protection and enhancement of the Wigan Flashes.

In Pearsons and Scotmans Flashes, improvements in water quality resulting from nutrient reduction are expected following completion of the work on the sewerage network by North West Water Ltd. It is hoped this will stop or reduce the incidence of Blue Green Algae events in Scotmans Flash and the associated impact on the River Douglas. We will continue to collect data during seasonal surveys of Scotmans and Pearsons Flashes. These measure physical and chemical parameters and assess the nutrient status of these standing waters.

The expansion of reedbeds in Pearsons Flash will aid self-purification. Expansion of existing reedbeds in other parts of the Flashes complex should provide a new breeding habitat for Bitterns (only two sites in England at present).

Water quality and the availability of suitable habitat are also important in supporting the recreational fishing interests around the Flash Complex. Japanese Knotweed, Himalayan Balsam and Giant Hogweed are endemic in some areas of the Flash system. In addition to this the *illegal* stocking of fish (especially carp) from other waterbodies into the Flashes, can alter the ecology and can even threaten the survival of the current fish population, should disease be introduced. Raising awareness, not only in the Flashes but also in other areas, should help minimise the risk of transmission of diseases and therefore reduce mortalities.

It is intended to extend the type of water related recreational pursuits to encompass educational walks and provide a school resource.

### Successes:

- £10,000 is to be spent on angling improvements at Wigan Flashes (Grid Ref. 587 000 038 000) in 2000/01. We have identified improvements for the next few years including improvements at Mystery Pit (on the Flashes). This will involve installing 15 angling pegs and a new walkway. (the angling pegs will also include pegs for disable anglers). A clear up at the site is taking place. There is a perimeter pathway and a small bridge giving access to Turners Flash.
- A fish survey has been carried out on Horrocks and Rainfords, which are linked to the Flashes. The survey at Turners Flash, early results show moderate fish populations. The full results of the survey will be publicly available in autumn 2000.

- **Action 1:** Water quality is now improved, monitoring has been done by our Marine Special Projects as part of the Cheshire Meres programme.
- **Action 2:** This action is now complete at a cost of £100,000. The action plan has now been implemented.
- **Action 3:** We have agreed environmental enhancements covering wildlife and informal recreational activities with North West Water, Lancashire Wildlife Trust. These plans have now gone to Wigan Metropolitan Borough Council Planning Authority. There has also been a decrease in blue /green algal incidence in Scotmans and Pearsons Flashes.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Monitor water quality status of Pearsons and Scotmans Flashes by seasonal surveys and disseminate information to Wigan and Chorley Working Group.	The Agency.														
2. Formulate action plan for Flashes complex.	Wigan MBC.	Wigan Flashes User Group / Working Group The Agency													
3. Implement action plan to promote recreation and educational resources at Flashes complex.	Wigan MBC.	Wigan Flashes User Group / Working Group. The Agency.													

**Benefit:** Monitoring of water quality status of both Flashes by seasonal surveys will provide confirmation of improvements following significant reductions in sewage discharges in 1998. The formulation and implementation of the action plan will improve recreational and fisheries potential in the urban area. Further benefits will also include an increase in aesthetic appeal and raising of public awareness and perception of the area.

#### **Issue 7: The need to survey and protect archaeological sites along rivers.**

The industrial heritage element of the Douglas area, particularly located by the waterside is itself an important recreational asset. Larger mills and the famous site of Wigan Pier are attracting a large number of tourists, contributing towards the local economy. However, there is a lack of information regarding the archaeological value of riparian sites. Further investigation is needed to assess the heritage potential of the area.

There are a number of sites within the Douglas area which have been identified, but are deteriorating through natural processes or lack of maintenance. The potential of the built heritage, in the area, to attract recreational users and also to provide an educational resource is not being realised. This is aggravated by our poor knowledge of the area's archaeology. We need to identify sites not currently known to us. Identification will prove beneficial as such:

- It will enable us to implement preservation and development programmes for the sites.
- The sites can be incorporated in the planning system and made available within the Agency.

The Sites and Monuments Records need to be updated by survey work. This will quantify the archaeological resource within the area before we can take steps to protect the features.

#### **Update on progress:**

- **Action 1:** No progress has been made on this action. The expected start date is 2004/05, at an expected cost of £13,300. The issue has been highlighted at national level within our conservation remit based on our lack of knowledge about archaeology and possibly not fulfilling our duties. The action is part of a multi-functional project in that Flood Defence, Fisheries, Ecology and Water Resources would be able to make an assessment of the impact of our works on archaeology as required by the Environment Act. There would also be benefits to Recreation as the sites have been used as sites of interest on a countryside trail in the Roch catchment. The same could be done on the Douglas catchment.

The relevant local authority is Lancashire County Council, which has also contributed £1,000 to the survey. Greater Manchester Archaeological Unit would also be a partner.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Archaeological Survey within 10metres of Rivers Douglas, Lostock and Yarrow.	The Agency.	GMAU.LA. LCC. Ramblers. Local Historical Groups.													No progress.
2. Manage the storage and manipulation of this data on the Agency's Geographical Information Systems and disseminate to other interested parties.	The Agency.	As above.													No progress.
3. Investigate ways of preserving and/or developing the known sites and other new sites that come from the above survey.	The Agency.	As above.													No progress.
4. Use available archaeological records to identify and protect known archaeological remains.	The Agency.	As above.													No progress.

**Benefits:** Resolution of this issue will enable us to implement preservation and development programmes.

**Constraints:** Lack of current knowledge/ access.

**Glossary:** GMAU – Greater Manchester Archaeology Unit, LCC – Lancashire County Council, LA – Local Authority.

**Focus 2002:** “Safeguarding the Very Best of the North West”.

#### **Issue 8: The need to protect land and homes from the risk of flooding.**

While there are two formal flood risk zones within the Douglas LEAP area, other sites throughout the area are susceptible to flooding from watercourses. In most cases, these sites are adjacent to "ordinary" watercourses on which the Agency has no powers to carry out maintenance or improvement works.

Additionally, development within the floodplain areas, which in itself poses an increased flooding risk, is actively opposed by the Environment Agency. However, where development has taken place in areas such as Robin Park, which is within the River Douglas flood plain, it is important to identify compensatory measures that can be taken in order to alleviate risk to the appropriate standards.

We have published our "Policy and Practice for the Protection of Floodplains" in which we state our overall aim of securing and, where necessary, restore the effectiveness of floodplains for flood defence and environmental purposes. The document does not represent a change in flood defence policy but is a consolidation of existing custom and practice. Further revision may be necessary once Planning Policy Guidance (PPG) is published.

Increased run-off from development, both within and outside floodplain areas, can also be a major problem for existing flood risk areas. These increases can place larger demands on the capacity of watercourses at times of heavy rainfall and high river flow.

Sustainable Urban Drainage Systems (SUDS) can reduce flooding implications of development by reducing immediate discharge into watercourses thus maintaining the existing flow regime. This is true up to the point of designated overflow after which uncontrolled discharges can occur ( i.e. up to a SUDS limiting capacity).

## Issue 8: The need to protect land and homes from the risk of flooding.

### Successes:

We have been looking at Urban Development Plans drawn up by Local Authorities and making comments where we feel there is a flood risk being created by, for example, housing development. Success has been achieved by our representations to Bolton Metropolitan Borough Council. Bolton Council's draft development plan now contains draft policies for flood defence. These policies will now enable us to ensure that development in the future can be more sustainable.

Main River	Non-main River
River Douglas	River Yarrow (Limbrick)
• Horwich	Pearl Brook
• Adlington	Hawkley Brook
• Standish	Close Brook
Pearl Brook	Barley Brook
Buckow Brook	Calico Brook
Smithy Brook	River Tawd (Skelmersdale)
Carr Brook	River Chor
Longton Brook	Abbey Brook
River Lostock	
Bannister Brook	

**Issue 8: The need to protect land and homes from the risk of flooding..**

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Implement development control policy to prevent new flood risks from being created.	The Agency. LA.	Developers	£40 k	2.0 FTE	£8k	0.4 FTE	£8k	0.4 FTE	£8k	0.4 FTE	£8k	0.4 FTE	£8k	0.4 FTE	
2. Non-Main River (a ) Consider extending lengths of main river to include sites currently designated non-main.  (b ) Local Authorities to exercise their permissive powers.  (c )Undertake investigations and identify solutions and implement works where it is practicable to do so.	The Agency on request of LA.  LA.  LAs with the Agency.														The Agency has a general supervisory role on non-main rivers.
3. Main River Undertake investigations, identify solutions and implement works where it is economically and environmentally viable to do so.		The Agency.													

## Issue 9: Emergency response to extreme flooding.

Historically, many towns and villages have been sited on the flat, low lying and fertile land adjacent to rivers - the floodplain. Potentially, anyone who lives in a floodplain is at risk of flooding. The Agency, local authorities and others do carry out works to minimise the risk of river and tidal flooding by carrying out maintenance or constructing new flood defences.

Within the Douglas area the following locations flood regularly:

### Fluvial Locations

River Douglas – Rufford  
River Douglas – Wigan  
River Yarrow – Croston

### Tidal Locations

Crossens - Southport  
Longton Brook - Longton Marsh  
Banks Watercourse - Banks / Hesketh OutMarsh

To help protect people and property from floods, including exceptional floods that breach flood defences we operate a four stage flood warning service. This comprises:

**Flood Watch:** This is a general early alert to all properties at risk from flooding from rivers or the sea. These messages are passed to support services and local media.

**Flood Warning:** Where the Agency is able to do so, flood warnings are provided for designated flood warning areas. These messages are passed to support services and local media and also direct to properties at risk by an automated telephone system.

**Severe Flood Warning:** Should the situation deteriorate the Agency can issue severe flood warnings to those areas that are able to receive Flood Warnings.

**All Clear:** When the threat of flooding has passed the Agency will issue an all clear to all areas at risk from flooding from rivers or the sea.

The following areas are designated Flood Watch Areas due to the likely risk of flood and the severity of the damage that a flood is likely to cause:

- Croston. Warning 358 properties.
- Wigan. We are reviewing the number of properties in Wigan that will receive a direct flood warning from the River Douglas.



## Successes:

- Implementation of the recommendations of the investigations following the Easter Floods of 1998. These include:
- Improve the rainfall and river flow stations in number, location and design for flood monitoring and forecasting and improve provision of river level and other catchment data during extreme floods for key points upstream of urban areas, to measure extreme river levels.
- Adopting a standard definition of a major flooding incident that is understood by all the support services.
- Organising an annual local joint agency exercise programmes to deal with a major flood.
- Organised National and local advertising campaign to raise awareness to the risks of Flood and the Telephone helpline "Floodline" on 0845 9881188.
- Developed an annual flood warning liaison meeting for all support services.
- Implemented the four code flood warning system.
- Lostock House has now been improved to provide a better lead time and standard of flood warning service to Croston flood zone. Accurate flood forecasting is now available for Croston. The budget of £42 k has been spent on this action.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Improve rainfall and river monitoring equipment.	The Agency.		£42k												
2. Major flooding scenarios to be incorporated in joint emergency planning exercises.	The Agency. LA. Emergency Services.														
3. Annual Liaison meeting with members of Local Authorities and Emergency Services.	The Agency. LA. Emergency Services.		£5k p.a.												
4. Development of greater links with Local Authorities regarding emergency response capabilities.	The Agency. LAs.														
5. Mapping of flood area that is deemed to be comparable to an extreme event.	The Agency. LAs.		£1k												
6. Introduce and run the Four code flood warning system.	The Agency.														
7. Take part in national and local awareness campaign.	The Agency.														

**Benefits:** The benefits of the above set of actions are:

- ability to measure extreme flows
- the standard definition of a major flood gives a specific point at which emergency responses are activated.
- every organisation will know its role in times of a major flood once major flooding exercises are incorporated into joint exercises.
- raising awareness by advertising will alert local people of the possibility of flooding.
- adoption of a National policy will ensure consistency throughout the Agency.
- Annual liaison meetings will improve links with Emergency Services and Local Authorities.
- developing greater links with Local Authorities regarding emergency response capabilities will provide an understanding of each others roles and also increase knowledge of availability of resources.
- mapping of flood areas ...will provide us with the ability to determine which resources will be required in the event of extreme flooding. It will also enable us to advise Local Authority Planning Authorities about the flood risk implications of development proposals.

# **Issue 10: The need to locate additional access sites for river maintenance to prevent flooding.**

We have identified six areas of the Douglas where difficulties are being encountered at current access locations. The need to obtain access for maintenance is paramount to prevent flooding, particularly in those areas identified as 'flood risk' i.e River Yarrow at Croston and Bannister Brook (School Lane through Leyland). The advantages of relocating access points are by way of efficiency savings for vehicles where the job is completed in a shorter time, meeting safety requirements and minimising disturbances to land use.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Identify new access locations and agree with landowner.	The Agency.	Wigan MBC, South Ribble B.C. West Lancs D.C. Bolton MBC Chorley B.C. GWK													

**Benefit:** By improving access the maintenance of watercourse would be made easier thus reducing flood risk due to debris and vegetation growth. Access to problem culverts also reduces flood risk associated with blockages. Improved efficiency will increase use of mechanical plant. There may also be an increase in recreational benefits at some locations resulting from this action.

**Glossary:** DaY RVI – Douglas and Yarrow River Valley Initiative, GWK – Groundwork Trust.

## **Issue 11: The need to upgrade Wastewater Treatment Works to improve water quality.**

The failures, listed below, to comply with water quality objectives and other localised water quality problems were detailed in the Consultation Report (page 26).

- River Douglas below Wigan and Skelmersdale WwTWs.
- Pearl Brook and in the River Douglas below Horwich WwTW.
- Tarra Carr Gutter below Longton WwTW.
- River Lostock below Leyland WwTW.
- Borderline compliance with the long-term objective in Eller Brook below Westhead WwTW.

### **Other localised problems:**

- Slack Brook below Brindle WwTW.
- Below Bispham Green WwTW.

### **Successes:**

- During the Douglas LEAP consultation period improvements at all of these works have been included in the AMP3 Environment Programme covering the period 2000 – 2005. We are currently involved in scheduling individual improvement works within this five-year period
- **Action 1:** We have started preliminary discussions with North West Water Ltd regarding Brindle WwTW.
- **Action 2:** This action was completed in late autumn 1999. The benefits have been improved effluent.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Improved treatment to meet water quality objectives at Wigan & Skelmersdale WwTW.	NWW Ltd.														
2. Improved treatment to meet water quality objectives at Horwich WwTW.	NWW Ltd.														
3. Improved treatment to meet water quality objectives at Longton WwTW.	NWW Ltd.														
4. Improved treatment to meet water quality objectives at Leyland WwTW.	NWW Ltd.														
5. Improved treatment to meet water quality objectives at Westhead WwTW.	NWW Ltd.														
6. Improved treatment to meet water quality objectives at Brindle WwTW.	NWW Ltd.														
7. Improved treatment and relocation of outfall at Bispham Green WwTW.	NWW Ltd.														Due to start March 2005.

**Benefit:** Improved treatment will result in improvements in water quality and aesthetic quality. It will also result in a contribution to achievement of water quality objectives.

## Issue 12: The need to upgrade combined sewerage systems to improve water quality.

There are presently around 50 still unsatisfactory CSOs requiring improvement out of a total number of around 160 overflows within the Douglas LEAP area. High priority unsatisfactory overflows discharging to Ince Brook, Bannister Brook, the River Chor and the River Yarrow have recently been improved. The remaining unsatisfactory overflows listed below will be addressed within the AMP3 period. Details were contained in the Consultation Report.

### Successes:

- The two CSOs on Barby Brook culvert have now been abandoned. There has been no measurable effect.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Pursue further improvements to sewerage network to resolve unsatisfactory CSOs within AMP3. listed below.	The Agency	NWW Ltd.													
The lower reach of Pearl Brook and the reach of the River Douglas below Pearl Brook.	The Agency	NWW Ltd.													Due for March 2005.
Discharges from the unsatisfactory overflow situated on the inlet sewer to Horwich WwTW contribute to these failures.	The Agency	NWW Ltd.													Due for March 2005.
Clancutt Brook. 3 Unsatisfactory overflows presently discharge to Clancutt Brook.	The Agency	NWW Ltd.													Due for March 2005.
2 unsatisfactory CSOs discharging to Close Brook in Wigan.	The Agency	NWW Ltd.													Due for March 2005.
2 discharging to Black Brook near Chorley.	The Agency	NWW Ltd.													Due for March 2005.
2/3 discharging to Chapel Brook, Euxton.	The Agency	NWW Ltd.													Due for March 2005.
2 discharging to Dean Brook.	The Agency	NWW Ltd.													Due for March 2005.
4 discharging to the River Yarrow.	The Agency	NWW Ltd.													Due for March 2005.
6/7 discharging to the River Douglas.	The Agency	NWW Ltd.													Due for March 2005.

2/3 discharging to the River Lostock.	The Agency.	NWW Ltd.														Due for March 2005.
6/7 discharging to Smithy Brook.	The Agency.	NWW Ltd.														Due for March 2005.
3 discharging to Syd Brook or tributaries of Syd Brook.	The Agency.	NWW Ltd.														Due for March 2005.
2 discharging to Boundary Brook.	The Agency.	NWW Ltd.														Due for March 2005.
1 at Carr Lane pumping station.	The Agency.	NWW Ltd.														Due for March 2005.
1 at Withnell Folding pumping station discharging to Whaves Brook.	The Agency.	NWW Ltd.														Due for March 2005.
1 discharging to Ackhurst Brook.	The Agency.	NWW Ltd.														Due for March 2005.
1 discharging to Abbey Brook.	The Agency.	NWW Ltd.														Due for March 2005.
1 discharging to Mill Brook.	The Agency.	NWW Ltd.														Due for March 2005.

### Issue 13: Failure to comply with the Dangerous Substances Directive.

The River Douglas below Wigan and Skelmersdale WwTWs intermittently fails to comply with the Dangerous Substances Directive Environmental Quality Standard (EQS) for dissolved copper. We have recently included into the consents for Wigan and Skelmersdale WwTW standards for copper which will ensure that the EQS is achieved in the River Douglas downstream. These standards have applied from May 1999 onwards.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Improved treatment and /or trade effluent control at Wigan and Skelmersdale WwTWs to reduce concentrations of copper.	NWW Ltd.														There has been no progress on this action.
2. Routine monitoring of compliance of River Douglas downstream.	NWW Ltd.														This action is continuing.

**Comment:** Resolution of this issue will depend on the effectiveness of trade effluent control in conjunction with effluent treatment provided.



## Issue 14 Failure to meet Bathing Water Directive standards.

Despite the completion by NWW Ltd of major capital sewerage and sewage treatment works improvement schemes, failures to comply with the mandatory bacteriological standards as defined in the Bathing Water Directive have continued to be detected along the Fylde Coast. Research carried out in 1997 indicated that discharges to the Ribble Estuary, including discharges from within the River Douglas catchment, were likely contributors to poor bathing water quality. Further research recently completed by, and on behalf of, the Agency examined the bacteriological inputs to the Ribble Estuary. Discharges from the Douglas catchment, in particular from Wigan WwTW, Skelmersdale WwTW and Hesketh Bank WwTW were again identified as significant contributors. Resulting from these findings the Agency has required NWW Ltd to implement a further programme of improvements to reduce the bacteriological loads discharged. Short-term measures that were implemented for the 1998 bathing season, included the provision of secondary treatment at Hesketh Bank WwTW and chemically assisted settlement at Wigan and Skelmersdale WwTWs. Further long-term measures have been identified and were provided for the 1999 bathing season. These include permanent secondary treatment and UV disinfection at Hesketh Bank WwTW. Substantial investments proposed at Wigan and Skelmersdale WwTWs were put on hold pending consideration of the results of further investigations recently undertaken. However, improved treatment at these works will be provided at some time during 2000 – 2005 (AMP3 period).

### Successes:

- **Hesketh Bank WwTW is now complete.** The benefits achieved have been improvements in bacteriological quality at Lytham in dry weather conditions. UV treatment has led to improved effluent.
- Other comments: Wigan WwTW is due to have the capacity of its storm tanks increased by March 2001. UV treatment at Wigan WwTW has to be provided by September 2002. At Skelmersdale WwTW UV treatment has to be provided by March 2004.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Installation of further treatment to reduce bacteriological input to the Ribble Estuary at:															
(i) Hesketh Bank WwTW.	This action is now complete at Hesketh Bank WwTW.														
(ii) Wigan WwTW.	NWW Ltd.														
(iii) Skelmersdale WwTW.	NWW Ltd.														

To complete this issue the expected work days are:

2000/01	60 Days.
2001/02	20 Days.
2002/03	20 Days.
2003/04	20 Days.

**Benefits:** The benefit from the improvements of further treatment at Hesketh Bank WwTW will be a contribution to achieving compliance with the Bathing Water Directive along the Fylde Coast. Improvements at Wigan and Skelmersdale WwTWs will also improve river quality in the River Douglas and make a contribution to the achievement of River Quality Objectives.

**Constraints:** Restrictions on water company expenditure imposed by OFWAT/DETR/pending further investigations.

# **Issue 15: The need to prevent excessive amounts of nutrients entering rivers.**

The treated effluent from Horwich WwTW is a significant contributor to elevated levels of phosphorus in the River Douglas. As a result of abstractions from the River Douglas to the Leeds and Liverpool Canal this discharge is believed to contribute to eutrophic conditions in the canal. This results in the prolific algal growths that can cause unsightly aesthetic conditions and on occasions cause fish kills. The River Douglas and Leeds-Liverpool Canal were designated as sensitive (eutrophic) areas in 1994. Nutrient removal equipment was provided at the end of 1998 at Horwich WwTW.

More recently, the River Lostock below Leyland WwTW and the River Yarrow below Chorley WwTW have also been designated as sensitive (eutrophic) areas. Nutrient removal at these two works is required by 2004. The Agency is continuing to investigate other inputs of nutrients to these two rivers. Diffuse inputs are thought to contribute significantly to eutrophic conditions in the River Lostock upstream of Leyland WwTW. The impact of Croston WwTW to the tidal reach of the River Yarrow is also being investigated through routine monitoring of diffuse inputs.

## **Successes:**

- We have received a proposal from North West Water Ltd to start chemical dosing trials on phosphorus removal for 2001. The installation of phosphorus removal plant at Leyland and Chorley WwTWs is due start in 2004.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Installation of phosphorus removal plant* at:															
(i) Horwich WwTW.	NWW Ltd.		The installation of phosphorus removal plant at Horwich WwTW was completed at the end of 1998.												
(ii) Leyland WwTW.	NWW Ltd.														
(iii) Chorley WwTW.	NWW Ltd.														

**Benefit:** Installation of phosphorus removal plant at Horwich, Leyland and Chorley WwTWs will result in improved water quality and also improved aesthetic quality. It will also contribute to the achievement of water quality objectives.

**Issue 16: Reclamation of the former colliery site at Heath Charnock.**

Chorley Borough Council intend to reclaim the former colliery site at Heath Charnock and subsequently develop it as a heritage park, to be known as Ellerbeck Heritage Park. The proposed heritage park will be linked, via the public footpath network, with the Yarrow Valley Country Park.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Reclamation of the former 28ha colliery site and subsequent development as a Heritage Park linked with the Yarrow Valley Country Park.	Chorley B.C.	The Agency.													

**Progress:**

**Action 1:** Chorley Borough Council has not been able to secure funding form this action. Other funding bodies are being approached.

**Comment:** We support this issue submitted by Chorley Borough Council relating to the heritage park's recreational features and subsequent environmental improvements.

# **Issue 17: Regeneration of various sites in Adlington.**

Chorley Borough Council is currently considering a number of sites within the Adlington area for regeneration. The main site is off Chorley Road at Fairview Farm that includes a land filled former quarry of 0.9 hectare. The site is proposed as a 10 hectare housing development.

The site investigation report, carried out by Lancashire County Council in 1997, mentioned that the landfilled former quarry is presently gassing to effect both existing and proposed residential development. The report proposes that appropriate remediation measures be undertaken by the a future developer of the site involving a gas venting trench and long term monitoring boreholes.

The other notable site within Adlington that will benefit from site clearance, improved access and landscaping is Waterman's Cottage. This site lies adjacent to the Leeds and Liverpool Canal opposite the White Bear Marina and is privately owned. The other, smaller sites that are neglected and unsightly are at various locations in Adlington but no detailed information is currently available from Chorley Borough Council.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Work carried out at Fairview Farm, Adlington by Chorley Borough Council.	Chorley B.C.	The Agency.													
2. Work carried out at Waterman's Cottage by Chorley Borough Council.	Chorley B.C.	The Agency.													

## **Progress:**

**Action 1:** Chorley Borough Council is in negotiation about Fairview Farm with developers.

**Action 2:** Chorley Borough Council has not been able to secure funding for this action. Other funding bodies are being approached.

**Comment:** We support this issue because of the resultant environmental and recreational benefits from Chorley Borough Council's initiative.

# **Issue 18: The treatment of a number of disused mineshafts at Copperworks Wood, Gillibrand, Chorley.**

Chorley Borough Council proposes to treat four old mineshafts by the replacement of soil reinforcements above each shaft.

The council envisages environmental improvements, following safety works, comprising new footpath infrastructure, access works, picnic areas and woodland management.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Treatment of disused mineshafts and subsequent environmental improvements.	Chorley B.C.	The Agency.													

## **Progress:**

**Action 1:** “ The treatment of a number of disused mineshafts at Copperworks Wood, Gillibrand, Chorley”.

Chorley Borough Council has not been able to secure funding for this project. Other funding bodies are being approached.

**Comment:** In principle we support Chorley Borough Council relating to the environmental and recreational benefits resulting from the council’s initiative.

## Issue 19: Sustainable development of Royal Ordnance Site, Euxton.

The Royal Ordnance site at Euxton is a former munitions filling factory constructed between 1936 and 1939. The majority of the site is now surplus to operational requirements. The site is now going through large-scale redevelopment through a concept routinely termed as "urban village".

The site is aiming to be a flagship for sustainable development that has been derived from an integrated approach to environmental, planning and development issues. Sustainability is also one of the key aims of the Agency. It is the intention to work in an integrated way to assist and influence the project with the use of sustainable urban drainage systems such as the provision of reed beds, to sustainable building design such as utilising insulation materials.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. We will provide expert advice and promote the implementation of water collection systems, waste minimisation techniques, reed beds and SUDS.	Chorley B.C.	The Agency. DaY RVI.													

**Benefit:** Multiple environmental benefits that can be advertised to other developers.

**Progress:** Reclamation works have now started on this site (summer 2000). This has involved the dismantling and burning of buildings.

## Issue 20: The opportunity to reduce emissions from Kirkless, Cemetery Road and Ulnes Walton Landfill Sites.

Both the Ulnes Walton and Kirkless landfill sites produce gas, and potentially in such quantities as to be economic. Apart from the obvious financial benefit this would bring to companies, landfill gas utilisation would also complement and reduce the costs of landfill gas control.

There are three other reasons for utilising the gas:

- Its use prevents it venting to the atmosphere where as a greenhouse gas it contributes to global warming;
- It reduces the drain on non-renewable fuel resources such as oil, gas and coal;
- Utilisation also reduces the risk of migration and therefore reducing the potential safety hazard.

The inclusion of this issue is in line with our national policy outlined in one of the nine environmental themes “ Addressing Climate Change”.

### Successes:

- **Action 1:** This action has now started in the form of a temporary gas extraction system been installed for flaring off. Kirkless landfill site has now approximately nine months of waste input left in its waste management licence.
- **Action 2:** Cemetery Road landfill site is now operational for gas extraction.
- **Action 3:** There is now planning permission for this action to start at Ulnes Walton landfill site. We are now looking at the design stage.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Implement gas extraction and recovery at Kirkless landfill site.	LWS Ltd. Landfill Management.	The Agency.													
2. Implement gas extraction and recovery at Cemetery Road landfill site.	LWS Ltd. Landfill Management.	The Agency.													
3. Implement gas extraction and recovery at Ulnes Walton landfill site.	LWS Ltd.	The Agency.													

**Benefit:** Implementation of gas extraction and recovery will contribute to a reduction in the greenhouse effect from emissions.

**Comments:** The determining factor in resolving this issue is financing the schemes. Furthermore the management of any immediate landfill gas risk is to take priority over energy recovery.



## **Issue 21: Water quality problems due to the misuse of separate sewerage systems.**

In response to problems identified by the Agency, North West Water Ltd (NWW) and the Local Authorities, site inspections are carried out to identify CSW problems. These visits allow site occupiers to be made aware of the impact on water quality and to rectify any problems. A review of contaminated surface water discharges from NWW water outfalls was carried out during 1997. A prioritised list of CSW problems in the North West Region was produced.

Around 60 of the highest priority problems in the North West Region, including several CSW problems in the Douglas LEAP area, are to be investigated over the next 2 years funded through NWW's efficiency savings. The remaining problems will be addressed as part of the AMP3 environmental programme of improvements.

### **Location of contaminated surface water (CSW) problems.**

The following failures to comply with water quality objectives and other localised water quality problems associated with discharges from CSWs have been identified within the Douglas LEAP area.

The following CSWs are causing localised problems:

- High priority CSW at Montcliffe Drive, Chorley affecting the Leeds-Liverpool Canal.
- High priority CSWs in Leyland affecting Bannister (Bow) Brook.
- Comet Road, Wigan affecting Close Brook.
- Penketh Place, Paxton Place, Paddock Road, New Church Farm and Houghtons Road, Skelmersdale affecting the River Tawd or tributaries of the River Tawd.
- Elnup Wood and at Crow Orchard, Shevington affecting Shevington Mill Brook and Almond Brook.
- Stoneygate Lane, Appley Bridge affecting Sprodley Brook.
- Killington Close, Wigan affecting Reed Brook.
- Sheldon Avenue, Standish affecting Bradley Brook.
- Windsor Drive, Brinscall affecting Brinscall Brook.
- Park Avenue, Chorley affecting Chapel Brook.
- Huntsfield affecting Carr Brook.
- Gill Lane, Walmer Bridge affecting Walmer Brook.
- Clovelly Drive, Newburgh affecting a tributary of the River Douglas.
- North Dene, Parbold affecting the River Douglas.

- Marus Bridge affecting Hawkley Bridge.
- Oxford Road, Orrell affecting Ackhurst Brook
- Miles Lane, Appley Bridge affecting Calico Brook.
- CSWs affecting Clayton Brook.
- Littleton Grove, Standish affecting Bradley Brook
- Weaver Avenue, Burscough.
- Roby Mill affecting Ayrefield Brook.

**Failures to meet objectives:**

(i) Significant failure to comply in Smithy Brook. A high priority CSW problem at Sandpiper Road, Wigan and further CSW problems at Billinge Road, Ravenswood Avenue and Costessy Way, Wigan can impact on this reach.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Resolution of high priority CSW problems by investigating sewer connections and remedying problems found.	The Agency. NWW Ltd.	LA.													This action is still in progress, the problems encountered have usually been wrong connections by householders on new housing estates.
2. Resolution of outstanding CSW problems in AMP3.	NWW Ltd.	The Agency.													This action started in summer 2000.

**Benefit:** The resolution of high priority CSW problems will provide improved water quality and aesthetics.

**Comment:** Costs for NWW, Local Authorities and Householders and availability of resources will be determining factors in the resolution of this issue.

## Issue 22: River water quality not meeting standards because of farming activities.

Agricultural activity predominates in certain parts of the Douglas Area. Diffuse run-off from agricultural land associated with cultivation, fertiliser usage and slurry spreading can result in pollution.

The stretches listed are those in which farming is considered to contribute to the failure to comply with a water quality objective:

- Carr Brook.
- Culbeck (Chapel) Brook.
- Longton Brook.
- Calico Brook.
- Buckhow Brook.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Carry out intensive surveys and specific pollution control farm campaigns to identify sources of farm pollution e.g. Carr Brook.	The Agency.	Farmers. NFU. The Countryside Agency. Landowners													This action will not be done this year (2000/01).
2. Rectify sources of farm pollution*.	The Agency.	As above.													
3. Continue farm inspections and promotion of best farming practices.	The Agency.														The best farming practices we have promoted are those contained within Ministry of Agriculture, Fisheries and Food (MAFF).

\* The cost of this action is dependent on problems identified.

**Benefit:** The combination of intensive surveys and specific pollution control farm campaigns rectifying sources of pollution with promotion of best practices will improve water quality and also contribute to the achievement of water quality objectives.

**Glossary:** NFU – National Farmers Union.

**Issue 23: The need to resolve the problems caused by properties that are not connected to the main sewerage network.**

In most communities in the UK domestic residences are connected to a sewerage system, most of which are owned and run by a Water Services Company. However, in some rural areas where there are only a few dozen properties or less, a public sewer may not be available. In such situations the provision of a sewerage system may be excessively costly, as it could involve the laying of many kilometres of pipe and need pumping stations to take the waste to the nearest treatment works.

Where there is no provision of a foul sewer, domestic waste often goes to a private treatment facility such as a septic tank. These then discharge to a soakaway or to the nearest watercourse. Most modern small treatment plants incorporate a biological filter system and treat waste to a good quality if maintained properly and not overloaded. However, increasing usage of water will place a greater load on existing systems and some of these may not now be able to cope. In certain rural areas housing developments may have resulted in a conglomeration of such systems.

The following areas have been identified in the Consultation Report (page 46) where a lack of sewerage facilities may contribute to failure to comply with objectives:

- Drumacre Lane.
- Burscough Road.
- Lathom.
- Tunley Brook.
- Top Locks Briars Lane, Glover Bridge.
- Dark Lane.
- Ring O' Bells.
- Longton Brook.

Other localised problems affecting tributaries at:

- Roby Mill.
- Little Hoole.
- Shore Road. Tarleton.
- High Moor.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1.Pursue provision of first time sewerage facilities or alternative solutions for known problem areas.	Householders.	LAs. NWW Ltd. The Agency.													There has been a distinct lack of applications from householders for first time sewerage facilities to North West Water. We are in the process of clarifying roles and responsibilities with North West Water and ourselves.

**Benefits:** Provision of first time sewerage facilities or alternative solutions for known problem areas will improve water quality. A contribution to the achievement of water quality objectives will also be made.

**Constraints:** Costs to NWW/Householders.

**Comment:** Timescales are dependent on householders applying to NWW Ltd for connection to the sewerage network.

#### **Issue 24: Increase in the number of pollution incidents caused by the construction industry.**

Generally pollution incidents are reducing year-on-year. Unfortunately within the construction industry the actual number of reported pollution incidents is on the increase. Based on available figures from 1997/1998 to 1998/1999 (financial years) there was a 30% increase in pollution incidents relating to the construction industry.

Due to the large presence of house-builders in the Douglas plan area we are implementing proactive targeting of these companies. This targeting will involve site visits and raising awareness of the code of practice for this industry sector for the promotion of environmentally safe working practices and making use of Agency media, such as video tape "Building a Cleaner Future" and distribution of "Site Right Action Pack". The objective of the targeting campaign is to ensure the use of sustainable building practices within the construction industry, particularly concerning major developments within the Douglas area e.g. Robin Park, resulting in environmental protection.

#### **Successes:**

- **Action 1:** Progress made on with this action has been achieved through our normal response to pollution incidents. The work involving contacting housebuilders locally as part of our promotional campaigns has not started because of lack of resources.
- **Action 2:** We have been involved in the Royal Ordnance Factory site at Euxton (new housing development) as part of our advisory role. We have set up an internal working group.
- **Action 3:** We have arrived at an agreement with Transco (part of British Gas) whereby contracts given by Transco to other companies for pipeline construction will specify measures such as retention features and leaving areas clear for access.
- **Action 4:** Our main focus has been on pollution prevention campaigns.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Agree way forward with house builders locally e.g. pilot areas during construction.	The Agency. LA.	The House-Builders Federation.													
2. Promotion of Sustainable Urban Drainage Systems (SUDS) at the design stage of a new development	LAs. The Agency.	Developers.													
3. Encourage developers to retain features within development at the design stage, e.g. watercourses and access strips.	The Agency. LAs.	Developers.													
4. Targeting campaign to ensure sustainable building practices in the construction industry.	The Agency.														

**Benefit:** The benefit realised from this action will be pollution prevention. The advice on sustainable sources for construction materials will help to enforce the vision of sustainable development.

**Comment:** The determining factor in resolving this issue is the willingness of the construction industry to adopt sustainable building practices advice given by us.

#### **Issue 25: Adverse impact of Bradley Hall, Kirkless and Moss Side Industrial Estate on the environment.**

Where high concentrations of industry occur, there tends to be a greater impact on the environment in many ways. These impacts can include pollution of nearby watercourses, contamination of land, large amounts of solid waste, large water usage, potential impacts on air quality and a detrimental effect to the visual amenity of the area. Most incidents of pollution originating from industrial sites and trading estates arise from accidents, negligence, poor storage and the mishandling of oil, chemicals and waste. As well as spillage, a common problem on more modern estates occurs from wrong connections to surface water drains resulting in wash waters, process effluents and contaminated yard washes all discharging to the nearest watercourse.

These industrial units have been converted from older premises and sub-let. The drainage systems have not usually been updated. These older systems are also more prone to blockages and leaks. In some instances drainage from the estate is non-existent. The provision of surface water interceptor diverters has shown benefits along the River Tawd where water quality has improved sufficiently following their installation to enable the introduction of fish.

Proactive targeting of these three sites over the next five years will lead to reductions in waste, improved water quality and a more visually attractive locality. Other sites also of concern include Lamberhead and Enterprise.

#### **Successes:**

- **Action 1:** This has now started at Kirkless and the landowner now has to put a system in place. We will advise and regulate.
- **Action 2:** We have been involved in talks with Groundwork and also with business clubs in Wigan and Skelmersdale



ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Identify any site drainage problems and site contamination.	Owners/ Occupiers. NWW Ltd.	Wigan M.B.C. LCC. The Agency.													
2. Rectify any site drainage problems and site contamination including remediation where possible.	Owners/ Occupiers. NWW Ltd.	Wigan M.B.C. LCC. The Agency.													
3. Promote good house-keeping on sites. Promote initiatives e.g waste minimisation project.	GWK. LCEEI. The Agency.														No progress to date
4. Promote links with business clubs / awards EMS / ISO 14001 e.g. Heinz Kitt Green.	The Agency.														No progress to date

**Benefits:** Identification and rectification of site drainage problems will improve water quality and aesthetics. This will also contribute to compliance with water quality objectives. A further benefit will be the reduction of health risk implications.

**Comment:** Costs to Owner, Occupiers and NWW will influence the resolution of this issue.

**Glossary:** GWK – Groundwork Trusts, LCEEI – Lancashire Centre for Environmental Excellence in Industry, LCC – Lancashire County Council.

## Issue 26: Adverse impact of drainage from abandoned minewaters on Smithy Brook and Yellow Brook.

There are many discharges of abandoned minewater in the area. The following have a major impact:

- Summersales Colliery and Pemberton Spoil discharging into Smithy Brook.
- The former Aspull Sough colliery discharging into Yellow Brook.

The Summersales Colliery / Pemberton area and Aspull Slough sites are included in the national top ten high priority sites identified. Mining consultants employed by the Coal Authority are now working with the Agency to draw up more detailed reports on the design and costs associated with proposals to remediate the top ten sites.

### Successes:

- **Action 1:** We have consulted with the mining consultants and provided biological data, with reference to other sources for assistance. Aspull Sough is still at the option stage, but our preferred option is passive treatment through an existing marsh (e.g. through a reedbed). The feasibility study for Aspull Sough (which includes Pemberton Spoil) has been completed and the information has been passed onto the Coal Authority and the mining consultants. We have also carried out an extensive monitoring programme on this site.
- The Summersales/Pemberton site has also had a feasibility study done, with a design for remediation. This information has also been passed onto the mining consultants.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Liaise with Mining Consultants on production of reports identifying solutions for the Summersales/ Pemberton and Aspull Sough sites.	The Agency.	Mining Consultants.													
2. Continued monitoring of other known minewater problems and initiation of monitoring at any future areas impacted by new minewater discharges.	The Agency														
3. Implementation of agreed solution.	Coal Authority.	The Agency.													

**Benefits:** Liaison with Mining Consultants will produce agreement and fully costed solutions available for inspection by DTi. The implementation of the agreed solution will improve water quality and also aesthetic quality. Continued monitoring of other known minewater problems will provide a data set for identification of priority areas should additional funding become available.

**Comment:** The costs incurred for each action are dependent on results from the analysis undertaken over the next twelve months.

## Issue 27: The cumulative adverse environmental impact of Metal Recycling Sites located in the Wigan area.

The current national Metal Recycling Site project aims to regularise (e.g. exempt or licence) all sites currently identified by the end of October 1999. Within the Douglas LEAP area 16 sites have been identified.

Eight Metal Recycling Sites are clustered in the area of Wallgate in Wigan (across the River Douglas from Robin Park). The potential problem from all 16 sites is mainly that of contaminated land from Hydrocarbons, metals and acids. Additionally clusters of poorly run sites also attract associated unauthorised waste management activities. We intend to regulate all such sites by a planned course of action. Alternatively if there is a failure to comply by these sites then we will prosecute.

### Successes:

- **Action 1:** This action is now complete as part of stage 1 of a national project. Stage 2 will start in October 2000 where we will identify those remaining sites. To date we have identified 95% of sites within this area, the remaining sites have closed down. Most sites have met the criteria for exemption, others are being dealt with through our routine inspection and monitoring programme.
- **Action 2:** Our public register will show those sites that have been licensed or exempted.
- **Action 3:** No prosecutions have been carried out on this issue.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Identify Metal Recycling Sites by a planned course of action.	The Agency.														
2. Licence or exempt identified sites.	The Agency.														
3. Prosecute, where necessary, offenders.	The Agency.														

## Issue 28: Adverse impact on the environment from Welch Whittle Site on Syd Brook.

Welch Whittle is a disused deep mining site. In addition, the site was the operational location of a waste incinerator and recent water quality monitoring has identified the presence of certain organic chemicals that may well be associated with this former use. Two deep mineshafts are located on the site and it is possible that these may be providing a migration pathway to Syd Brook. The current landowners operate the site as a scrapyard.

The Agency and the local council are to discuss a strategy for the site during 1999 to consider a potential partnership bid to DETR for Capital Project / Supplementary Credit Approval funding.

Since the publication of the Consultation Report a meeting with Chorley Borough Council was arranged for early May 1999 to discuss the strategy for the site. Resulting from the meeting a partnership was formed between Chorley Borough Council Lancashire County Council and the Agency. The objective of the partnership is to develop a strategy using desk studies, site investigations and sampling exercises.

### Successes:

- There are two parts connected to this issue; contaminated land and minewater problems. The contaminated land issue now has a monitoring programme in place, the minewater problems are now high on our regional priority list with a monthly monitoring programme. This monitoring data is then sent to mining consultants.

ACTIONS	RESPONSIBILITY		TOTAL COST		99/00		00/01		01/02		02/03		03/04		COMMENT/ DRIVER
	LEAD	OTHER	C	R	C	R	C	R	C	R	C	R	C	R	
1. Undertake extensive investigations to determine degree of contamination.	Landowner.	The Agency.													
2. Assessment of the investigations and determination of contamination and develop a remedial strategy for the site.	The Agency. LA.	Developer. Site Owner.													

**Benefits:** Undertaking extensive investigations will determine degree of contamination and most suitable remedial technique. A strategy will be developed to improve groundwater and surface water. The study will also contribute to compliance with water quality objectives.

**Comment:** Costs incurred by landowners and developers will influence the successful resolution this issue. Costs are also dependent on results of the investigations.

We are actively involved in the promotion of partnerships with other organisations to resolve or to improve environmental issues. The objective of partnership building is to use the combined resources of each partner organisation to achieve maximum benefit from environmental improvements.

Within the Douglas LEAP area we have been involved in various projects, working in collaboration with others, these are as follows:

- Douglas and Yarrow Valley River Valley Initiative (including Canal Partnership projects).
- Lancashire Wildlife and Landscape Forum.
- Wigan Flashes Conservation Management Group.
- Parbold Liaison Group.
- Kirkless Liaison Group.
- Rigby House Liaison Group.
- Lancashire County Council Waste Management Officers Strategy Group.
- Closed Landfill Partnership.