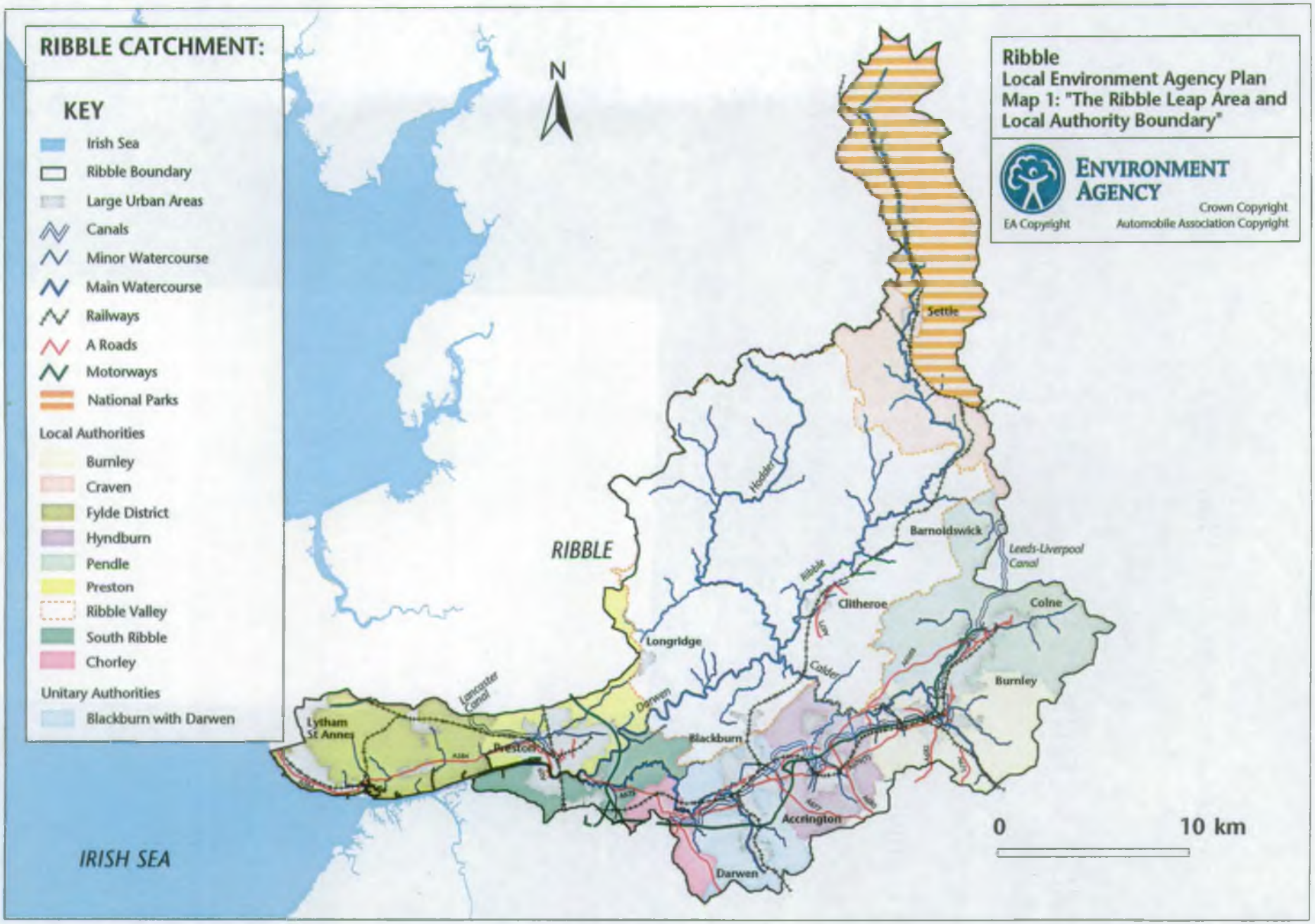
Local Environment Agency Plan

RIBBLE ACTION PLAN
2000-2005

JUNE 2000


RIBBLE CATCHMENT:
KEY
Irish Sea
Ribble Boundary
Large Urban Areas
Canals
Minor Watercourse
Main Watercourse
Railways
A Roads
Motorways
National Parks
Local Authorities
Burnley
Craven
Fylde District
Hyndburn
Pendle
Preston
Ribble Valley
South Ribble
Chorley
Unitary Authorities
Blackburn with Darwen
N
Ribble
Local Environment Agency Plan
Map 1: "The Ribble Leap Area and Local Authority Boundary"
ENVIRONMENT AGENCY
EA Copyright
Crown Copyright
Automobile Association Copyright
RIBBLE
IRISH SEA
Settle
Barnoldswick
Leeds-Liverpool Canal
Clitheroe
Colne
Longridge
Burnley
Lancaster Canal
Darwen
Lytham St Annes
Preston
Blackburn
Accrington
Darwen
0
10 km

FOREWORD

I am very pleased to introduce the Ribble LEAP Action Plan. Following extensive consultation we have stated what we feel are the key environmental issues that need to be solved in the Ribble area.

This plan states that we are committed to working with local people and organisations to improve the environment of the Ribble area.

We will also be protecting the environment by regulating industry firmly and fairly.

I would like to thank all those people that took part in the consultation, particularly Central Area Environment Group.

I would encourage people to explore and enjoy their local environment.

P C Greifenberg
Area Manager
Central

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CONTENTS

KEY DETAILS

General					
Plan Area					2128 sq.km
Flood Defence					
Length of Main River					110km
Planning Authorities					
Total number of planning authorities within the plan area					9
Conservation and Recreation					
Total number of Sites of Special Scientific Interest (SSSIs)					63
National Nature Reserves (NNR)					7
Special Areas of Conservation (SAC)					2
Areas of Outstanding Natural Beauty (AONB)					1
Special Protection Areas (SPA)					3
Water Resources					
Total Number of permanent flow measuring stations					11
Total Number of licensed surface water abstractions.					296
Waste Management					
Licensed Waste management operations in the area:					
Number of landfill sites					39
Number of transfer stations					39[1]
Number of metal recycling facilities					27
Estimates of Controlled Wastes (1998/1999)					
Waste to Landfill					1390851.814
Waste to Householders recycling points					71954.736
Length of Fishery					
Length of Salmonid					230km
Length of Coarse Fishery					50km
IPC/RAS Sites					95
Topography					
Highest point above sea level					1275m
Lowest point below sea level					50m
Number of Pollution incidents (Jan – Dec 1999)	Category 1	Category 2	Category 3	Category 4	Category Totals
Oil	0	8	104	32	144
Chemical	0	0	6	2	8
Sewage	2	6	92	13	113
Organics[2]	0	1	14	6	21
Totals	**2**	**15**	**216**	**53**	**286**

Notes: 1 – The figure for transfer stations excludes the following:
- 3 storage stations
- 4 treatment stations
- 14 household collection centres

2 – Number of pollution incidents for Organics excludes oil.

THE LEAP PROCESS

The Local Environment Agency Plan for the Ribble is produced on a five year cycle.

In year one (1999) a consultation report was produced. This outlined what we felt were the key environmental issues in the area. This was then widely distributed and people and organisations had the opportunity to comment on the plan. We particularly encouraged people and organisations to identify areas where it is possible and sensible to work together to bring about real environmental improvements in the Ribble area.

We received 161 written responses from 33 individuals or organisations. These informal comments have allowed us to develop this Action Plan. Over the next three years we will publish Annual Reviews to demonstrate our progress in carrying out these actions.

The whole LEAP process benefits from the advice of the Area Environment Group. This consists of 21 members who live and work locally and advise us on how plans should be produced to meet the needs of local people and organisations.

Vision for the Ribble LEAPArea

Our vision is: A better environment in England and Wales for present and future generations.

This Action Plan explains how we intend to help bring about a better environment in the Ribble area over the next five years.

We have specific responsibilities relating to improving the environment. We only have the authority and resources to plan for those matters which are related to our statutory duties and responsibilities. These responsibilities include managing and regulating the water environment, controlling waste management, regulating emissions from major industrial processes and contaminated land. We also have duties to protect and improve biodiversity, manage freshwater fisheries, to protect the landscape and heritage of land and to promote recreation. Throughout the Action Plan logos are used to identify the responsibilities that the actions relate to.

 Managing Water Resources

 Delivering Integrated River Basin Management

 Managing Freshwater Fisheries

 Conserving the Land

 Enhancing Biodiversity

 Managing Waste

 Improving Air Quality

 Addressing Climate Change

 Regulating Major Industry

LEAPs and other plans

We share the regulation and management of the environment with others. Local Environment Agency Plans intend to complement and integrate with other plans such as Local Waste Plans, Local Air Quality Management Plans, Development Plans, Local Agenda 21 Action Plans and Local Biodiversity Action Plans.

LEAPs and Partnerships

We are particularly keen to work in partnership with people and other organisations. To support communities we have set up River Valley Initiatives. These support local tidy up campaigns, develop school nature areas and help community groups to get funding for their projects. We are also working with Lancashire County Council and North West Water, along with the Borough Councils of Wyre, Fylde, South Ribble, Preston, Chorley, Wyre and West Lancashire to offer advice and small grants to local community environmental projects.

The Local Environment Agency Plan has been used to help support the development of Local Agenda 21 in Burnley, Hyndburn and Pendle Boroughs. Examples of our support for Local Agenda 21 includes running workshops with Burnley Borough Council and the Sustainability Action Partnership, Providing some funding for a Prospects group in Oswaldtwistle to grow organic food and improve Tinker Brook for wildlife and supporting an environmental fair in Pendle.

We have also supported the East Lancashire Partnership. The East Lancashire Partnership is developing a way of making sure local organisations work together effectively to make East Lancashire a better place to live, work and visit. The Local Environment Agency Plan has been used to help identify local environmental concerns.

As you read through the Action Plan it will be obvious that there are many other actions that are being developed in partnership with other organisations, ranging from community groups to local councils and businesses.

Introduction to the Ribble LEAP Area

Other Local Environment Agency Plan (LEAP) areas in NorthWest Region border the Ribble LEAP area, namely: Lune, Wyre, Croal/Irwell and Douglas.

The River Ribble is one of the longest rivers in North West England, draining a catchment of area of 2,128 square kilometres and covering a distance of 110 kilometres from source to mouth. The Ribble originates high in the Pennines at Newby Head Moss at an altitude of 422 metres. The upper river cascades down, with the Yorkshire Dales National Park to the east and the Forest of Bowland to the west.

In the upland catchment the major use of the land is for farming, being based around small villages and hamlets such as Horton-in-Ribblesdale and Long Preston. This part of the Ribble attracts visitors enjoying many recreational activities from gentle walks around the picturesque villages to long walks along the fells. Fishing is also a popular pastime in the area as the clean river waters have good populations of salmon and trout.

The mid Ribble is joined just south of Clitheroe by two major tributaries, the River Hodder and the River Calder. The River Hodder rises in the Forest of Bowland and provides a large proportion of the drinking water supplies for Blackburn and Hyndburn. The River Calder, crossing East Lancashire, contrasts to the Hodder in that it is recovering from previous industrial areas, exhibiting many pollution relics such as minewater and contaminated land run-off as well as discharges from old sewers.

The River Ribble then flows through Preston, where the docks are being regenerated and then out into the Irish Sea by Lytham St.Annes. Whilst Lytham St.Annes marks the beginning of a coastline famous for its seaside tourist attractions the Ribble Estuary is also of European importance because of its wildlife value, especially the migratory birds.

The Issues

The issues are presented with a number of actions, a target timetable and the identification of responsible parties. Where possible, costs have been outlined, for each action, 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, but are grouped to demonstrate how they relate to our responsibilities. The use of logos is used to identify our responsibilities.

List of abbreviations used in tables

The Agency	Environment Agency
AC	Angling Club(s).
BW	British Waterways
CA	Coal Authority
EN	English Nature
EP	English Partnerships
FA	Forestry Authority
FWAG	Farming and Wildlife Advisory Group.
GWK	Groundwork Trust
LA	Local Authority.
LCC	Lancashire County Council
LWS	Lancashire Waste Services.
LWT	Lancashire Wildlife Trust.
MAFF	Ministry of Agriculture, Fisheries and Food.
NFU	National Farmers Union.
NWW	North West Water Ltd
PBC	Preston Borough Council
REEL	River Enhancement East Lancashire
RFERAC	Regional Fisheries Advisory Committee
RO	Riparian Owner
RVBC	Ribble Valley Borough Council
RVI	River Valley Initiative.
SMPP	Shoreline Management Plan Partnership

Key to estimated costs

•	Action in the year indicated
U	Unknown cost at this time
K	£,000
NA	Costs not available.

ISSUE 1: PROTECTION OF THE FYLDE AQUIFER

The rocks underneath the Fylde area hold water, this is known as the Fylde aquifer. The water is then taken out of the rocks to supply water to homes and industry. If the water is taken out of the rocks faster than it refills then it can cause environmental problems. In the Fylde we are concerned that too much water may be taken out of the rocks and as a result the Ribble and Wyre rivers are suffering low water levels. This is harmful to wildlife that lives in or nearby the rivers.

Over the last three years we have been finding out how much water the rocks hold and how much water can be taken out without causing harm to the environment.

To take water out of the Fylde aquifer a licence is needed. We issue the licence and state how much water is allowed to be taken. The information we have now will allow us to issue licences so that water is taken at a rate that it can be replaced. It is important for us to continue to improve the way we collect this information and will increase monitoring of water levels at sites most at risk of damage. This will help us to safeguard the wildlife in and around the Ribble and Wyre rivers.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Increase groundwater monitoring especially those near important habitat sites e.g. Winmarleigh Moss.	The Agency		£5,000		✔				
2.Develop Management Strategy for Fylde Aquifer.	The Agency		On going staff costs	✔	✔	✔			

Note: There are no immediate plans for the installation of a new flow gauge at Woodplumpton Brook, which was referred to in the Consultation Report. Consequently the proposed action has been removed from this action plan.

ISSUE 2: LOW FLOWS IN THE BRENNAND AND WHITENDALE RIVERS.

The amount of water in a river varies. This can cause problems for wildlife if the difference between high water level and low water level is large.

Fish may lay their eggs when the river level is high, if the water level then drops the eggs could dry out and die.

The Rivers Brennand and Whitendale suffer from this problem. Here water is taken out by North West Water to supply water to East Lancashire. They take the water out of the rivers high on the fells where the rivers are at their most natural. This means wildlife suffer, for example fish are forced downstream where there is more water.

We are working with a large number of people and organisations to find out the best way of taking water out of the Brennand and Whitendale rivers without harming wildlife. To do this we will work out how much water fish need in the river to live a healthy life. We will then use licences to limit the amount of water taken out of the rivers.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Futur
	Lead	Other							
1. Determine minimum biologically acceptable flow or managed flow regime.	The Agency	NWW Other abstractors	£2000 p.a.	✔	✔				
2. Identification and implementation of managed abstraction regime: 2.1. Consultation with interested stakeholders. 2.2. Identify preferred option. 2.3. Approval of preferred option obtained. 2.3 Construct new abstraction intake.	The Agency NWW NWW NWW		Costs for each action depend on preferred option.	✔ ✔ ✔	 ✔	 ✔	 ✔		
3. Rationalise the points of abstraction.	The Agency	NWW Other abstractors	NA	✔	✔	✔			
4. Reduce abstractions from the affected areas.	The Agency	NWW Other abstractors	NA				✔	✔	

ISSUE 3: ADVERSE IMPACT OF DISCHARGES FROM WASTEWATER TREATMENT WORKS.

The sewerage system takes waste water (effluent) from homes and businesses to Wastewater Treatment Works (WwTW). Wastewater Treatment Works clean the water before putting it back into rivers or the sea. It is important to get the dirty wastewater so clean that it does not cause any pollution problems when it is put back into rivers and the sea. This is very expensive to get right.

The wastewater needs to be treated to remove organic matter. If organic matter is put back into rivers then when it breaks down it will take oxygen out of the water that is needed by fish and other wildlife, so they will suffer. When the clean water is put back it needs to be free from solids, otherwise they can settle on the river bed which causes problems with the wildlife that lives there. The water can look clean but still contain chemicals such as phosphates and ammonia, which cause problems for wildlife.

To try and prevent these problems we recommend the improvements needed at Wastewater Treatment Works to the owners, North West Water.

North West Water then produce a plan that shows all the suggested improvements along with the costs and the benefits that will be gained. This is called the Asset Management Plan, known as AMP3. The government and the water watchdog, OFWAT, then decide on which improvements will actually be carried out over the next five years.

The improvements we have suggested are listed in the table overleaf. This represents one of the biggest environmental improvement projects in the country. Our main concern is that we feel improvements are also needed at the Wastewater Treatment Works in Blackburn. We are currently working on a new study to show why the improvements are needed.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Installation of additional treatment at: Barnoldswick WwTW, Clitheroe WwTW, Burnley WwTW, Hyndburn WwTW. Settle WwTW, Hellifield WwTW, Colne WwTW,	NWW[1]	The Agency	NA			✔ ✔ ✔ ✔	✔ ✔ ✔		
2. Re-evaluation of proposed improvements at Blackburn WwTW.	The Agency		Staff costs only.	✔					
3. Installation of additional treatment at Blackburn WwTW (pending above).	NWW[2]								✔
4. Review consents to prevent deterioration at Waddington WwTW. Chipping WwTW. Horton-in-Ribblesdale WwTW. Long Preston WwTW	The Agency		NA	✔ ✔ ✔		✔			
5. Review consent for Blackburn WwTW in line with Agency Dangerous Substances Policy.	The Agency		NA		✔				

Notes: 1. NWW Ltd costs for all schemes estimated at £10million - £100million.
2. Costs presently being re-evaluated.

ISSUE 4: ADVERSE IMPACT OF DISCHARGES FROM COMBINED SEWERAGE SYSTEM OVERFLOWS.

Combined sewers are used to carry both waste water (foul drainage) and clean surface waters (rain falling on roofs and hard standing areas) to wastewater treatment works. Following a storm there can be more water than the sewers can cope with, so overflow pipes allow excess wastewater to flow into streams and rivers. Historically sewerage systems were of the combined type and as overflows only happened when streams and rivers were full of rainwater the wastewater from the sewers was diluted and did not cause excessive pollution. Now, due to the building of new homes and business the sewers overflow more frequently. This is often at times when there is not enough water in the stream and rivers to dilute the sewage and so it does cause pollution.

North West Water have improved some of these combined sewer overflows, a good example is one at Bannister Brook in Leyland which has now benefited local wildlife. Improvements have also been made at Blackburn (phase 1), Nelson and Lea Gate, near Preston.

Whilst some improvements have been made there is still a need for more. There are presently around 350 Combined Sewer Overflows in the Ribble LEAP area and approximately 130 of these are considered to be unsatisfactory and lead to pollution of river and bathing waters.

Over the next five years 94 combined sewer overflows will be improved. This leaves 25 unsatisfactory combined sewer overflows in Preston that we will seek improvements on as a matter of urgency in North West Water's next improvement programme. These improvements should lead to improved river and bathing water quality.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Futur
	Lead	Other							
1.Post-scheme monitoring and appraisals of recently completed schemes at Huncoat, Morris Brow, Engine Brow, Walton-le-Dale and Ballam Road.	The Agency		Staff costs only	✔	✔				
2. Resolution of outstanding UCSOs during AMP3 : Fylde/Lytham (x2) Mellor (x1) Preston Centre (x35) Settle (x2) Hyndburn (x8) Blackburn Phase 2 (x20) Burnley (x4) Barnoldswick (x3) Swinden Clough (x2) Pendle/Brierfield (x5) Darwen Town Centre (x8) Roddlesworth (x1) Osbaldeston (x1) South Ribble (x2)	NWW[1]	The Agency			✔ ✔ ✔	✔ ✔ ✔	✔ ✔ ✔ ✔ ✔	✔ ✔ ✔ ✔	
3. Through our normal consultation process we will recommend to Local Authorities to apply development control restrictions until completion of sewerage schemes: e.g. Blackburn	LA	The Agency	None	✔	✔	✔	✔	✔	

Notes: 1. North West Water Ltd combined costs estimated at £50m - £100m. .

ISSUE 5: ADVERSE IMPACT OF DISCHARGES FROM SEPARATE SEWERAGE SYSTEMS.

Separate sewerage systems are used in modern developments for dealing with uncontaminated surface water run-off and foul sewage. Clean water is piped and discharged to a local watercourse and the foul sewage is conveyed to a Wastewater Treatment Works (WwTW). The advantages of this network, compared to the traditional combined sewerage system, are the elimination of the need for storm sewage overflows and the reduced treatment costs due to the smaller volumes treated.

The problems arise from these systems where foul water is incorrectly plumbed to the surface water system (e.g. from household washing machines) or where contaminated liquids are poured down surface water drains instead of drains connected to the foul sewer. A good example of this type of pollution is the pond at Crown Lee Street in Preston. Over 1000 homes have been built at Parklands and they have combined sewers. The pond at Crown Lee Street was suffering from pollution. This was due to people plumbing in washing machines incorrectly or dirty washing water was being drained into the ponds as a result. A clean up campaign has since led to improvements at this pond.

We are actively encouraging the installation of sustainable surface water drainage systems. Such systems are beneficial to the environment by reducing pollution and flooding risks. These systems can also prove to be financially beneficial to the developer installing them.

We have expressed concern about the impact of contaminated surface water problems at Parklands, Penwortham (near Preston) and at Lammack and Beardwood Estates in Blackburn.

Successful implementation of these actions will result in improved water quality, aesthetics and local impacts.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Resolution of high priority contaminated surface water problems by investigating sewer connections and remedying problems found.	LAs Developers	The Agency House-holders	NA	✔					
2.Resolution of outstanding contaminated surface water problems in AMP3.	LAs Developers	Agents. The Agency	NA	✔	✔	✔	✔	✔	✔

ISSUE 6: ADVERSE IMPACT OF DISCHARGES FROM STOCKS WATER TREATMENT WORKS.

Stocks Reservoir is a major source of drinking water in the area. The treatment of raw water for drinking water generates a significant amount of sludge. This sludge has in the past been disposed of in landfill areas located on the site adjacent to the River Hodder and Phynis Beck. Due to the nature of the Hodder area and the chemicals used on site the sludge contains elevated levels of metals such as aluminium, iron, lead and copper. Uncontrolled discharges from the landfill areas are being made to the River Hodder and, to a lesser extent, to Phynis Beck

Following a meeting with NorthWest Water, remediation proposals were produced by the company, of which we have serious concerns. In order to satisfy our own concerns about the proposals we have expanded the team working on this issue to include expertise from our Geo-Technical team. Their involvement will be looking at the remediation proposals[1].

There are two problems on the site:

1. Fast run-off, when water moves from the landfill site to neighbouring land quickly, causing instability.
2. Slow run-off, when water moves through the site slowly picking up pollutants as it sinks deeper into the site.

North West Water has already installed a perimeter drainage system to monitor run-off and have concluded a trial remediation area for re-vegetation which appears to have been successful in establishing grass on the cap.

In resolving the issue the objective is to achieve a balance between these fast and slow run-offs, resulting in stabilisation and reduction of leachate. We will also be involved in testing of permeability of material and looking at proposals for the profile of the cap.

We have collected information and data, which has shown that no treatment was needed immediately. The information and data also show that it is a point discharge, for which a consent will be required. We will also be considering if a groundwater risk assessment is required.

North West Water is to re-grade, top soil and plant the existing landfill site, taking into account such factors as permeability and plasticity of the deposited material. Run-off is to be slowed before entering the drainage system by a series of terraces and planted areas.

The benefits gained from these actions will be a reduction of environmental impacts from the site and aesthetic improvements.

Note: 1.This is to ensure that the proposals conform to guidance contained in Waste Management Paper 27.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Provision of treatment e.g. reed bed, for discharges from the landfill site.	NWW	The Agency	NA	✔					
2. Restoration of landfill area.	NWW	The Agency	NA	✔	✔	✔	✔		

ISSUE 7: ADVERSE IMPACT OF ACTIVE AND ABANDONED MINERAL WORKINGS.

When water runs through a disused mine or spoil heaps it picks up chemicals and becomes polluted. The most common sign of pollution is an orange discoloration of the water due to iron. Some polluted waters have a characteristic "rotten egg" smell and accompanying white deposit on the bed of the watercourse indicating pollution from sulphides. Pollution of this type makes the rivers and streams less attractive and is also harmful to wildlife.

Contractors have recently started work on the site of the treatment plant, which will treat the minewater from Deerplay Colliery currently discharging into Black Clough. The work involves sinking a borehole at the former colliery site, which is just over the watershed in the River Irwell catchment. Minewater will be pumped from the borehole into settlement lagoons and a reedbed / wetland area on the same site, where it will be treated before discharging into the Irwell catchment. Pumping from the borehole will reduce the water level in the mine workings so that the discharge to Black Clough ceases.

It is anticipated that after the borehole is completed test pumping can commence in June 2000. The treatment plant is scheduled to start operating later this year.

A proposal to install a rail link currently exists for Horton Quarry. This should lead to the removal of much of the contaminated material. If this is not successful, we will revise the discharge consent re-introducing a pH limit. This will then require a dosing strategy to correct the pH.

We have recently signed a Memorandum of Understanding with the Coal Authority. This will mean that the respective resources of both organisations can be used together. This will enable us to prevent any new pollution from abandoned coal mines and also to reduce existing pollution by minewater discharges.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Interception and pumping, interception and treatment of discharges at Deerplay.	Coal Authority		NA	✔					
2. Removal of old mining deposits at Horton-in-Ribblesdale.	Tarmac		NA	✔	✔	✔	✔		

ISSUE 8: POLLUTION FROM AGRICUTURAL ACTIVITIES – THE USE OF SHEEP DIP.

In 1996 a serious pollution incident happened on the River Ribble near Selside, which affected more than 20km of the river. Although no fish appeared to have been killed, the effect was serious on the invertebrate life in the River Ribble for some time after. Other less serious problems have been detected on the Rivers Laneshawe/Colne and Langden Brook, near Dunsop Bridge. These pollution incidents have involved synthetic pyrethroid chemicals that are found in some sheep dips.

Sheep dips containing synthetic pyrethroid chemicals are being used more frequently as they are safer for the operators. However, they can be a hundred times more toxic to the water environment than Organo-phosphate sheep dips.

We have implemented a monitoring strategy on the Upper Ribble and Hodder catchments to use both chemical and biological markers to identify possible sheep dip pollution. This will also be augmented by pro-active work. This is particularly important following the ban on Organo-phosphate dips and a likely increase in the use of Pyrethroid dips.

We have also started implementation of the EC Groundwater Directive, whereby we will regulate the disposal of dips.

Actions	Responsibility		Est. Agency Costs.	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Awareness raising campaign in the Ribble, Wharfe and Aire areas to lessen the use of Synthetic Pyrethroid sheep dips.	The Agency (NW and NE Regions)	Farmers NFU	NA	✔	✔	✔	✔	✔	✔

ISSUE 9: POLLUTION FROM AGRICULTURAL ACTIVITIES – THE SPREADING OF WASTES ONTO AGRICULTURAL LAND.

Most wastes need to be taken to a place that has a licence to deal with waste. This makes sure that waste is dealt with responsibly and safely. Waste paper pulp is unusual because it can be spread onto farm land without the need for a licence [1].

We are concerned that the spreading of waste paper pulp onto farm land could lead to pollution. There is no time limit between delivery of paper waste onto farming land and the final spread over the land. This delay could allow chemicals in the paper to leak out and run into streams causing pollution. There are examples of paper pulp effluent containing very high levels of ammonia and, in addition to these high levels, both pulp and effluent can contain certain toxic elements. Large piles of waste paper pulp can also look untidy spoiling people's enjoyment of otherwise beautiful countryside.

Whilst farmers do not need a licence to spread waste paper pulp there is a code of good practice which if followed should prevent any pollution. We encourage farmers to follow this good practice, however this is voluntary and it is not legally binding. The benefits of following good practice not only include preventing pollution but can also lead to lower operating costs for the farmer.

To demonstrate successes of the code of practice to farmers we are working closely with a number of organisations including the Farming and Wildlife Advisory Group (FWAG) on the Sustainable Rivers Project and the Bowland Initiative. Farm Waste Management Plans have also been compiled by ADAS Consulting.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Promote good practice in spreading slurry and exempt wastes on to the land.	The Agency	Farmers NFU	NA	✔	✔	✔	✔		
2. Monitoring selected sites before and after the spreading of waste on the land.	The Agency		NA	✔	✔	✔	✔		
3. Promote Farm Management Plans including storage solutions.	The Agency	Farmers Land-owners Agricul-tural Contrac-tors	NA	✔	✔	✔	✔		
4.Promote buffer strips.	The Agency	Farmers Land-owners Agricul-tural Contrac-tors	NA	✔	✔	✔	✔		

Notes: 1. The types of paper pulp exempted are paper waste sludge, waste paper and de-inked paper pulp. Paper pulp spreading is recognised as an exempt activity from waste licensing under Regulation 17 of the Waste Licensing Regulations 1994. The exemption needs to be registered in conjunction with Regulation 18 of the same.

Before the waste paper is spread onto farm land it is normal practice for a field test to be carried out by agricultural consultants to establish background levels of chemicals. The waste paper material is then tested, which in turn is then related to the field test. This is to ensure that the rate of spread is compatible with Ministry of Agriculture, Food and Fisheries (MAFF) guidelines, contained in codes of agricultural practice.

ISSUE 10: DETRIMENTAL ENRICHMENT OF WATERS.

Several stretches of water within the Ribble area are affected by excessive growths of algae. This is because the algae thrive on extra nutrients, which are being discharged into the water from Wastewater Treatment Works and farm land. As the algae thrive they can take the place of more sensitive species such as Water Crowfoots. Excessive algae can lower the level of dissolved oxygen and increase the alkalinity of the water making it difficult for many animals, including fish, to survive. When water is in this state it is referred to as being eutrophic.

Excessive nutrients in the water can also lead to toxic blue green algal blooms. Such blooms have appeared in the Leeds and Liverpool Canal in the Nelson area and in Preston Docks. This poses a health hazard to anyone using the water for recreational activities and can look unattractive.

Trial use of barley straw started in 1999, financed by Preston Borough Council. We were involved to the extent of providing staff time, advice and monitoring of the initiative. Monitoring has shown that the use of barley straw has had a negligible impact on blue green algal blooms within Preston Dock. The continued use of barley straw is still under discussion and we are also looking at alternatives. We will also continue to provide advice and monitoring.

Actions	Responsibility		Estimated Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Monitor effects of reduced phosphorus loads discharged from Settle and Barnoldswick WwTW.	The Agency		Routine monitoring and staff costs only	✔	✔				
2. Provide nutrient removal at Clitheroe, Burnley and Hyndburn WwTW.	NWW	The Agency	NA					✔	
3. Monitor and report on water quality of Pendle Water and the River Calder with a view to also designating these waters as sensitive (eutrophic) areas in the future.	The Agency		Staff costs only.	✔	✔				
4.Trial use of barley straw in the Preston Dock.	The Agency	LA	£10,000	✔					

Glossary:

Eutrophication – The enrichment of waters by nutrients, especially compounds of nitrogen and phosphorus. This causes an accelerated growth of algae and other plants, which replace the plants and animals that would normally be found there.

ISSUE 11: ADVERSE ENVIRONMENTAL IMPACT AND/OR RISK ASSOCIATED WITH UNSEWERED RURAL COMMUNITIES.

Sewage from homes and businesses that are not connected to the sewerage network are causing stretches of poor water quality in rural areas. In these areas where there are only a few dozen properties or less, a public sewer may not be available. When there is no provision of a foul sewer, then it is the responsibility of the homeowner to provide a facility such as a septic tank. Septic tanks usually produce worse effluents than Sewage Treatment Plants and should not be connected directly to a watercourse. The problem can become acute in certain rural areas where a cluster of houses all discharge into the same local watercourse. Here, water quality can be badly affected even when the individual sewage treatment plant may be working satisfactorily.

It is the responsibility of the homeowner to approach North West Water Ltd for connection to sewerage facilities and state their case. This system makes it difficult for rural homeowners to gain connection to the sewerage network, consequently water quality suffers as a result of this.

We have been pro-actively involved in pursuing resolution of this issue, mainly through close liaison with Ribble Valley Borough Council. We have also been pursuing provision of first time sewerage facilities in discussions with North West Water as and when the opportunity arises. NWW have, in certain circumstances, a duty to provide homeowners with sewerage facilities, where it is deemed both appropriate and cost effective.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Provision of first time sewerage facilities.	NWW	House-holders. LA	NA	✔	✔	✔	✔	✔	
2. Improvement of existing treatment facilities.	House-holders The Agency		NA	✔	✔	✔	✔	✔	
3. Liaise with Planning Authority to make them aware that new development in certain areas could adversely affect water quality due to inadequate sewerage facilities.	The Agency	LA	NA	✔	✔	✔	✔	✔	

ISSUE 12: FAILURE OF DESIGNATED BATHING WATERS TO MEET EC DIRECTIVE STANDARDS.

Bathing water quality at Lytham St. Annes is variable due to a number of factors. It is affected by the quality of water in the Ribble Estuary, which itself is variable depending on the time of year and weather conditions. The influence of the Irish Sea also needs to be considered in bathing water quality.

To address the issue we are working in partnership with NorthWest Water Ltd (NWW) to investigate and implement measures to ensure that the bathing waters around Lytham St. Annes reach a good, clean standard. The two beaches at Lytham St.Annes are designated as bathing waters under the EC Bathing Waters Directive.

The main concern is that despite the recent completion of a number of major improvements, by North West Water, these waters presently fail to comply with bathing water standards. North West Water has already invested significantly, amounting to millions of pounds improving effluent quality by installing secondary treatment at Preston and Southport Wastewater Treatment Works. And also by eliminating crude sewage discharges such as those at Fairhaven.

A number of actions proposed in the consultation report have been completed. The completion of action 1, "provision of disinfection at Preston and Southport Wastewater Treatment Works" has resulted in 90-99% removal of bacteria. We will, of course, be continuously monitoring future results at these sites. Action 2 has also been completed. This related to "provision of further storage to reduce discharges of storm sewage from Fairhaven and Lytham pumping stations and Preston Wastewater Treatment Works". Preston Wastewater Treatment Works now provides for 63,000m^3 extra storage. Lytham Wastewater Treatment Works now provides 6,300m^3 storage and Fairhaven Wastewater Treatment Works now has forward flow. Consequently, these two actions have been removed from this action plan.

We are currently awaiting the construction of the mathematical model. To date, the River Douglas and Wigan Wastewater Treatment Works are highlighted as being significant contributors to the failure of designated bathing waters to meet EC Directive Standards.

Other factors contributing to poor water quality have also been investigated. This has included investigating horse manure being buried at Lytham beach. We have also established a forum in partnership with other organisations. Resulting from the forum a series of seminars have been held attended by various organisations and individuals. An Agency officer is now co-ordinating activities and ensuring effective communication between all partner organisations concerned with bathing waters at Lytham St.Annes.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Construction and use of a mathematical model of Ribble Estuary to investigate failures.	NWW	The Agency	NA	✔					
2. Investigation into other factors contributing to poor water quality (e.g. agricultural inputs).	The Agency		Staff Costs only	✔					

ISSUE 13: THE APPARENT LACK OF MAINTENANCE OF THE RIVER CHANNEL OF THE LOWER RIBBLE.

Since the closure of Preston Docks there is no clear evidence of maintenance of the training walls along the tidal section of the River Ribble or the river channel. Also since the docks closed 15 years ago there has been no dredging. Consequently a build up of silt may occur that could render ineffective some gravity outfalls to the estuary making pumping necessary. There is also the possibility that through the lack of maintenance the training walls could start to break up. This could lead to meandering of the channel with the threat of erosion of the present sea defence works and of flooding of the reclaimed Grade 1 agricultural land. This land forms a considerable part of the estuary. Deterioration in water quality and fishery interests is another possible adverse effect.

To date the Shoreline Management Plan (SMP) has recommended that a study of the Ribble Estuary be undertaken. We have also planned to expand the Shoreline Management Plan process further up the Estuary. We are also looking at any possible impact the development of the link from the River Douglas to Savick Brook (to form the Ribble Link) may have on this issue. The Shoreline Management Plan will identify and clarify responsibilities for maintenance and also produce a management strategy and accountabilities for each partner organisation.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Carry out investigation.	ESMPP		NA	✔	✔	✔			
2.Carry out remedial works, as required.	Appropriate body		NA	✔	✔	✔	✔	✔	✔
3.Continue to monitor the situation.	ESMPP		NA	✔	✔	✔	✔	✔	✔
4. Identify clear responsibilities and produce management strategy and accountabilities.	ESMPP.		NA				✔		

Glossary:

ESMPP – Estuary Shoreline Management Plan Partnership.

Grade 1 agricultural land -This is land which is considered to be the best and most versatile land, expressed in Government guidance contained in Planning Policy Guidance (PPG 7 note 7 – revised February 1997) " The Countryside – Environmental Quality, Economic and Social Development".

ISSUE 14: THE DEVELOPMENT OF SAVICK BROOK TO FORM THE RIBBLE LINK.

The Ribble Link Trust proposed to build a link between the Lancaster Canal and the River Ribble. This will allow for a navigable link between the Ribble Estuary and the Lancaster Canal allowing boats to enter the Leeds and Liverpool Canal. This increases the length of navigable watercourse in the area and could result in increased recreational tourism in the region. The Ribble Link Trust has gained planning permission to build a canal along part of the length of Savick Brook. Our concern is that because the water quality of Savick Brook is poor we consider that the new link would have an unacceptable water quality due mainly to discharges from combined sewage overflows.

As part of the process to address the issues arising a series of meetings have taken place between the interested parties concerned with the development of Savick Brook to form the Ribble Link.

The development can be viewed in two parts:
1. The overall scheme is being modelled.
2. We are also modelling a large flood event in terms of, for instance, its impact on the structure and adjacent areas.

We have required the current level of flood defence in Savick Brook to be maintained in the Link. This is protection for a 1 in 50 year event plus 500mm freeboard. In addition the new link will have to accept existing land drainage. We also require the input of more severe flood events to be modelled to provide a complete picture of the way the link will work under flood conditions, and allow us to plan to protect or inform local people.

Negotiations with British Waterways (BW) are taking place to clarify all aspects of maintenance. We will if necessary retain the right to undertake works and charge the operator when maintenance is not carried out. In the near future an agreed maintenance regime will be required to cover possible legal aspects and also to define roles and responsibilities for each organisation. A Memorandum of Understanding is a possible outcome, once roles and responsibilities have been agreed, with some degree of legal standing.

We are working with the Ribble Link Trust and British Waterways to incorporate wildlife features, recreational access and fisheries enhancement into the final design of the Link. The Lea Marsh, as well as important plant and animal species habitats will be protected or enhanced. This includes habitats for bats, water voles and plants, which like brackish water. The approach is to maintain biodiversity within the design criteria.

We are helping to fund a model of the water resources use for the canal. The Link will only be used when there is sufficient water available. We are also looking to see a British Waterways Operating Regime in place.

We have contacted the builders and will use our experience of other large schemes to help minimise the impact of the build. The builders will be bound by law and we will prosecute where necessary. During construction of Savick Brook we will be advising the contractor of our requirements to minimise the

environmental impacts of the Ribble Link and also the Savick Brook stretch. We will also carry out routine inspections during this phase.

Changes have been required to the Link design to ensure that water quality would be protected. The operators have agreed to treat any discharges from the sewer network which cause a problem. This is both until and after North West Water carries out its planned improvement works. In terms of identifying management methods for dealing with discharges from combined sewer overflows these are being discussed. One example of a management method would be a system of linkages to a telemetry system.

The way that issues of flood defence, water usage, wildlife enhancement and water quality will be dealt with will become part of an operating manual, which the operators, British Waterways, will develop and use.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1a. Protection of Flood Defence standards.	The Agency	Ribble Link Trust. BW.	NA	✔	✔	✔	✔	✔	
1b.Agreed maintenance regime.	Ribble Link Trust. BW.			✔	✔	✔	✔	✔	
2. Inclusion of ecological, recreational and fisheries enhancement at the design stage.	Ribble Link Trust. The Agency		NA	✔					
3. Undertake study of the water resources and produce management plan for the Lancaster Canal, the Ribble Link and the Douglas link to the Leeds and Liverpool Canal.	BW. Ribble Link Trust.	The Agency	£25,000	✔					
4. Develop a multi-functional group led by the local environmental protection team to oversee construction.	The Agency. Construc-tion Company.		NA	✔					
5. Identify management methods for dealing with discharges from combined sewer overflows prior to completion of NWWs improvement works.	BW. Ribble Link Trust. The Agency.		NA	✔					

ISSUE 15: EMERGENCY RESPONSE TO EXTREME FLOODING.

Historically many towns and villages have been built by the side of a river or on the low lying fertile land near a river. This is known as the flood plain as it regularly floods.

In these areas we are well prepared to deal with the expected floods, and have good flood defences that are regularly checked and maintained. However, there are very infrequent violent storms that cause extreme flooding. These extreme floods affect land and people that may only experience such a flood once in every 50 years. Because these are rare events people can be less prepared than people who live in the flood plain.

We aim to work with other emergency services and local authorities to ensure that an emergency response to extreme flooding is well planned and carried out.

To inform the public on the dangers of flooding we have run a poster campaign on bill boards. An independent company (BMRB) evaluated the campaign to be a success.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Improve rainfall and monitoring equipment.	The Agency		£15,000	✔					
2. A standard definition of a major flood.	The Agency		NA	✔					
3. Major flooding scenarios to be incorporated in joint exercises.	The Agency		£20,000	✔					
4. Adopting a national policy on identifying high risk properties.	The Agency		NA	✔					
5. Annual liaison meeting with Local Authorities and Emergency Services.	The Agency LAs. Emerg-ency Services.		NA	✔	✔	✔	✔		
6. Developing greater links with Local Authorities regarding emergency response capabilities.	The Agency LAs.		£15,000	✔	✔	✔	✔	✔	✔
7. Mapping of flood area that is deemed to be comparable to an extreme event.	The Agency LAs.		NA	✔	✔	✔	✔	✔	✔

ISSUE 16: LOCATIONS AT RISK OF FLOODING WITHIN THE RIBBLE AREA.

To help protect people and property from flooding we have three priorities:

1. To maintain and improve existing flood defences. This currently costs £175,000 per year and involves treatment of vermin, cutting aquatic weed, mowing banks and the removal of blockages including fallen trees.

2. Develop a formal flood warning scheme. This includes three formal flood risk zones at Low Moor, Ribchester and Walton-le-Dale. We are also seeking to identify other high risk areas that may benefit from being included in the scheme.

3. We visit local planning authorities and examine planning applications. Where there are existing drainage and / or flooding problems we aim to stop the problem from worsening by influencing new development. We visit all planning authorities in the Ribble area. We advise that new developments in problem areas are restricted or that they restrict surface water run-off, preferably using the latest Sustainable Urban Drainage Systems (SUDS) so that they do not add to drainage or flooding problems. We can also insist that owners of river banks do not remove any flood defences.

We also work closely with local authorities as they have responsibilities for some rivers. Our priority is to jointly inspect those rivers that they are responsible for to make sure maintenance and improvements are carried out.

The Ribble area can also suffer from tidal flooding problems along the coast. The Ribble estuary stretches from Formby Point to Fleetwood, a distance of 68 kilometres. This includes Grade 1 farmland and is an important site for breeding wildfowl and migrating birds.

The Ribble Estuary Shoreline Management Plan describes how we deal with tidal flooding problems in the Ribble estuary. It looks forward over the next fifty years and includes the possible effects of climate change and rises in sea level. The Shoreline Management Plan also describes the studies and monitoring that is needed to improve our understanding of the Ribble coastline. It's recommendations will be implemented over the next five years and it will be continuously reviewed on a five yearly basis.

We also have Operation Neptune, which started in the mid 1980's, to formalise the flood warning system that informs emergency services and the public on the likelihood of a flood.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
Main River Problems. 1. Require riparian owners to carry out works of maintenance or improvement.*	The Agency		NA	✔	✔	✔	✔	✔	✔
2. We exercise our powers to carry out works of maintenance or improvement.*	The Agency		£175,000 p.a.	✔	✔	✔	✔	✔	✔
3. Flood warning scheme.	The Agency		NA	✔	✔	✔	✔	✔	✔
4. Prevent new flooding problems being created.	The Agency		NA	✔	✔	✔	✔	✔	✔
Non Main River problems. 1. Require riparian owners to carry out works of maintenance or improvement.	RO	The Agency	NA	✔	✔	✔	✔	✔	✔
2. Ask Local Authorities to exercise their powers to carry out works.	LAs		NA	✔	✔	✔	✔	✔	✔
3. Consider re-maining specific sites.	The Agency		NA	✔	✔	✔	✔	✔	✔
4. Flood warning scheme.	The Agency		NA	✔	✔	✔	✔	✔	✔
5. Prevent new flooding problems being created.	The Agency LAs		NA	✔	✔	✔	✔	✔	✔
Tidal flooding. 1. Require riparian owners to carry out works of maintenance or improvement.*	The Agency RO		NA	✔	✔	✔	✔	✔	✔
2. We exercise our powers to carry out works of maintenance or improvement.	The Agency		NA	✔	✔	✔	✔	✔	✔
3. Flood warning scheme.	The Agency		NA	✔	✔	✔	✔	✔	✔
4. The Agency to oppose new development that creates new flooding problems*	The Agency		NA	✔	✔	✔	✔	✔	✔

Note: * These actions are dependent on regional priorities and availability of funding.

ISSUE 17: THE STRATEGIC DEVELOPMENT OF RIVER VALLEY INITIATIVES IN THE RIBBLE AREA.

We support the development of River Valley Initiatives (RVIs) in the Ribble area as a way of involving, raising awareness and educating the public in environmental issues. There are currently five RVI style activities in the Ribble area:

- Ribble Estuary.
- Ribble RVI.
- Darwen RVI.
- River Enhancement East Lancashire (REEL) RVI.
- Douglas and Yarrow Valley Action (not in the Ribble LEAP area but part of Source to Sea).

Over the past year further developments of River Valley Initiatives (RVIs) within the Ribble LEAP area have taken place. The first option in the consultation report "Produce proposals on an integrated approach for the development of the RVIs in the Ribble area" has taken place with the establishment of Source to Sea. This association takes the form of a management group for all of the RVIs within the Ribble area, with all of the RVIs working together through Source to Sea.

The Source to Sea has a strategic focus to reflect the fact that the Ribble catchment is a total natural system. This natural system embraces a number of physical elements, which have also been reflected by the various initiatives. These have evolved to date to foster co-operative working in particular areas. The current policy is to ensure that activities carried out in one area do not have a negative impact on others within the catchment and that best practice is spread throughout the catchment. It is also important to ensure that addressing local issues will, where appropriate, help to sustain the wider system.

The strategy of co-operative working being advocated in Source to Sea will enable catchment wide action to be better identified and more effectively targeted. It will also provide the strategic framework asked for by potential funding bodies. The strategic focus also provides the capacity to develop a vision for the catchment as a whole, which:

- Enables communities to understand the wider relevance of their local actions.
- Contributes to sustainable development within the County of Lancashire.
- Creates a framework in which cross area, cross sector and cross activity working can take place.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Produce a management strategy for the Source to Sea approach of RVIs in the Ribble area.	RVI Partnership involving the Agency.			✔					
2. Independent development of each RVI with continued Agency involvement.	RVI Partnership involving the Agency.			✔	✔	✔	✔	✔	

Glossary:

Sustainable Development – development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

ISSUE 18: THE ADVERSE IMPACT OF DIRECT AND INDIRECT STOCKING OF TROUT.

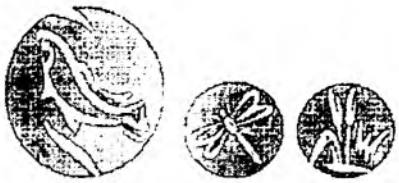
We aim to make sure that there is a healthy population of fish in the rivers of the Ribble area.

We are concerned that angling clubs and people who own stretches of river are putting brown trout into the river to fish. The problem is that these fish are of a size that will eat the young fish that are already in the river. This obviously harms the natural populations of salmon, sea trout, brown trout and other fish such as chubb and dace.

We aim to work with people to produce a sustainable stocking strategy for brown trout. We will also improve natural populations of fish by improving rivers and bank sides for fish. To stop fish escaping from reservoirs we will improve screening.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Gain agreement with interested parties to develop a sustainable brown trout stocking strategy.	The Agency	RO. AC. RFERAC. Ribble Fisheries Association. Fish farmers.	NA		✔				
2. Improve natural fish populations by habitat restoration. (see also Issue 25).	The Agency	RO. AC. RFERAC. Ribble Fisheries Association. Fish farmers.	£10,000 p.a.	✔	✔	✔	✔	✔	
3. Reduce number of indirectly stocked by improving reservoir and fishery screen.	The Agency	Fishery Owners. Fish farm owners.	NA	✔	✔	✔	✔	✔	

Note: We will use our powers by implementing section 14 of the Salmon and Freshwater Fisheries Act 1975 to prevent fish escaping from reservoirs.



ISSUE 19: THE DECREASING QUALITY OF FISHERIES RIVER HABITAT.

Over time rivers change and this can cause problems for fish. In the Ribble area river banks used to be held together by long grass, flowers and trees. In places these have been removed and new soil gets washed into the rivers. The soil covers gravels on the river bed. This makes the gravels useless as spawning grounds for fish, that is the place where fish lay their eggs. As a result there are less fish.

Reservoirs and water intakes can prevent gravel being washed downstream so gravel beds eventually disappear as no new gravel arrives to replace lost gravel.

We aim to improve gravel beds to provide good spawning areas for fish. We have already had success at Birkett, Foulscales and the River Loud.

We are now going to concentrate our efforts at:

1. The spawning becks on the River Hodder at Birkett, Foulscales, Loud, Croasdale and Easington.
2. The River Ribble at Grindleton Bridge.
3. Long Preston Beck.

All of the improvements will be carried out in partnership with other organisations.

The Ribble Catchment Conservation Trust is managing a project called Leader 2. This is funded by the Ministry of Agriculture, Fisheries and Food. This will help to prevent sheep and cattle eating bankside vegetation by fencing along the river bank. This will prevent soil being washed into the rivers and so the gravel spawning areas will be kept clean. Also the plants on the river bank will provide dappled shade on the river which is good for young fish.

We also work with the Bowland Initiative, which receives European funding. The Bowland Initiative provides funding to improve a wide range of farming and rural activities. The Bowland Initiative provides a free service to farmers which gives them advice on improving farm incomes and also on how the farmland could be improved for wildlife and fisheries. Grants are available to then carry out the improvement works.

We also work with other organisations including the Yorkshire Dales Millennium Trust and Hyndburn Borough Council. In Accrington we are working with Hyndburn Borough Council to provide an urban fishery at Platts Lodge.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Use environmentally sensitive techniques, such as willow raddling, to help recreate valuable habitat features.	The Agency	RO. AC. Ribble Fisheries Association.	NA	✔	✔	✔	✔	✔	
2. De-silt existing spawning gravel.	The Agency	RO. AC. Ribble Fisheries Association.	NA	✔	✔	✔	✔	✔	
3. Re-introduce gravel downstream of reservoirs and other gravel traps.	The Agency	NWW. BW. AC. Reservoir Owners.	NA	✔	✔	✔	✔	✔	
4. The Sustainable Rivers Project.	The Agency		NA	✔	✔	✔	✔	✔	
5. The Leader 2 Project.	The Project Partners		NA	✔	✔	✔	✔	✔	
6. The Bowland Initiative.	The Project Partners		NA	✔	✔	✔	✔	✔	
7. Individual Agency projects.	The Agency	AC. Farmers. Landowners	NA	✔	✔	✔	✔	✔	

Glossary:

European Regional Development Funding (ERDF) Objective 5B. This funding stream relates to actions to promote the development of rural areas which are most in need of assistance. This takes into account their level of economic development, including such factors as the degree to which they depend on agricultural employment, their population density and level of agricultural income.

The Leader 2 Project. A European funding stream which aims to encourage an integrated approach to rural development at the grass-roots level. Support is provided for Local Action Groups, which devise programmes for developing local areas.

ISSUE 20: ADVERSE IMPACT OF MAN MADE BARRIERS TO THE MIGRATION OF FISH.

We aim to ensure that fish are allowed to swim freely along the rivers of the Ribble area to enable their populations to become sustainable and healthy. We are concerned that along the Rivers Ribble, Calder, Hodder and Darwen a number of man-made barriers have a direct influence on the successful movements of all fish species. The barriers reduce access to available spawning grounds, prevent the mixing of populations of the same species and also isolate some species from entire sections of a river.

We would wish to see all barriers made passable except for those that isolate an important population, such as one of natural brown trout. We will also consider, where required, the heritage value of the barrier as well as the possibility of passage for small craft.

We have recently identified barriers at Newby Weir on Swanside (on the Skerton system). But, as yet, no data is currently available to assess their impact. A fish pass has also been provided at Newby Weir (Grid ref. SD 785 455). This now allows access of salmonids. Work has also been carried out by NWW on a fish passage through the abstraction point on the River Dunsop (Grid ref. SD 653 532).

The scheme at Padiham Weir has been identified as a major project for this financial year, funding being brought together from various streams, including the Agency, lottery money and Millennium funds and landfill tax. To date there are no results available, the project is due for completion later this year. The benefits realised from the Padiham Weir project include access of both salmonids and coarse fish to the upper reaches of the River Calder system. The project will also provide recreational value for canoeists.

We are also currently investigating other areas of funding and identifying possible partnerships for collaboration.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Identify and assess the impact of all the barriers on the Ribble.	The Agency	RO. AC.	£3,000 p.a.	✔	✔				
2. Provide fish passes or completely remove the obstructions as funding permits.	The Agency	RO. AC.	£16,000 for 2000/01	✔	✔	✔	✔	✔[1]	
3. Continue to progress the scheme on Padiham Weir.[2]	The Agency	REEL RO.	£100,000	✔					
4. Investigate possible areas of funding and collaboration.	The Agency	REEL Other funding bodies.	£2,000 p.a.	✔	✔	✔	✔	✔	

Note: 1. This action will possibly continue beyond 2004-2005.
2. This action will continue until actual completion.

ISSUE 21: LACK OF AWARENESS OF AND POOR ACCESS TO WATERCOURSES.

In the Ribble area, especially in the more urbanised parts of the Calder area, rivers and other water bodies represent one of the few natural features and are also an excellent resource for information and education. Our priority is to increase awareness of access to watercourses, particularly in areas like Burnley. Currently this resource is under-utilised and we aim to encourage more people to visit the area and increase peoples perception of watercourses as valuable assets for recreational activities such as walking, cycling, canoeing, horse riding, angling and birdwatching

We have identified improvements to be required at various locations. These have been done in partnership with Darwen, Ribble and River Enhancement East Lancs (REEL) River Valley Initiatives (RVIs). The Darwen and REEL RVIs are the main urban initiatives.

Some specific improvements identified are at Gawthorpe Hall in Padiham, where access paths need improvement and in Burnley Town Centre, where the improvement scheme proposed will include improved signage, opening views from the bridge onto the watercourse and lowering bridge parapets.

We are also aware of improvements needed at Walverden Water, but as yet proposals have still to be made.

Darwen RVI has proposed a "Source to Sea" path as a Water-Power Trail. The outcome of this will be a long-distance footpath. And linkages have also been identified, for example a Water Power Trail in the Darwen catchment and extending the Pendle Water Power Trail linking in the River Calder and Hyndburn Brook.

The promotion of improved access and new schemes will take various forms. These can include issuing press releases and using local radio stations publicising successful completion of schemes, provision of information leaflets and also erecting interpretation boards adjacent to watercourse footpaths and public areas.

As part of our educational aims we will target the various local communities and societies within urban areas. These can include community groups, schools, colleges and businesses. Currently there are organisations and initiatives, which we can work in partnership with to realise common objectives. Organisations such as the Eco-Schools Initiative, Watermark Project (part of which can involve businesses linking with local schools on environmental education), Gawthorpe Environment Movement and RVI education packs and liaison are good examples. We have also expanded the educational aspects of our work, in relation to this issue, by inviting schoolteachers to visit specific sites as teaching days. The objective is to encourage teachers to then take their pupils to these sites as part of their normal class work.

We are mindful of the potential side effects of increasing access to watercourses, namely it can make a watercourse a target for fly-tipping. Bearing this in mind reinforces the notion of a local population taking ownership of their own environmental features and respecting the value of these features. We are aware that increased development adjacent to watercourses can also restrict access. Because of this we seek to encourage greater awareness among future developers of the potential benefits to a site.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Locate specific areas that require improved access or where access exists but is currently under-utilised.	Landowners LAs. The Agency		NA	✔	✔	✔	✔		
2. Work in collaboration with local councils and community groups to develop action plans.	Landowners LAs. The Agency.		NA	✔	✔	✔	✔		
3. Promote new and existing opportunities for recreation.	The Owners. The Agency.		£1,000 p.a.	✔	✔	✔	✔		
4. Education of various groups to raise awareness of their impact upon the environment and others.	Landowners LAs. The Agency.		NA	✔	✔	✔	✔		
5. Broker formal agreements where conflicts arise.	Landowners LAs. The Agency.		NA	✔	✔	✔	✔		

ISSUE 22: THE OPPORTUNITIES FOR DEVELOPMENT OF BROWNFIELD SITES.

In the Ribble area there are brownfield sites, which potentially can be brought back into beneficial use through remediation, if appropriate, redevelopment and landscaping. A brownfield site can be vacant, derelict or abandoned, and it may also be contaminated. The benefits realised from these initiatives would be valuable places for wildlife and also for people to enjoy.

Riversway, Preston: To date the remedial works at the site have involved the removal of a layer of floating hydrocarbons from the groundwater surface.

The closed landfill sites are all relatively small. We have planned for improved access onto and across the sites. We have also started a tree thinning programme as a basis for further bio-diversity enhancements and improvements at Chatburn and Lower Barnes Street sites.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. **Riversway, Preston.** Identify degree of contamination and remediate.	Preston Borough Council.	The Agency	£384,000 for 2000/01	✔					
2. **Closed landfill sites**[1] Identify sites and improve public access and enhance bio-diversity at: Lower Barnes Street (Clayton-le-Moors) Huncoat Bull Hill (Darwen) Farholmes (Church)[2]	LCC	The Agency LAs EP	£15,000 (for all sites)	✔	✔ ✔				

Notes: 1. Since the publication of the Consultation Report these sites have been completed: Knotts Lane (Colne) and Chatburn.

2. No work is planned to start on this site (Farholmes, Church) for at least the next three years.

ISSUE 23: HIGH LEVELS OF EROSION IN THE RIBBLE AREA.

Erosion is a natural outcome of an active watercourse and our aim is not to prevent all erosion but to highlight areas where it is a recent and severe problem and to combat this.

Landscape changes, mainly due to changing agricultural practices, has badly affected the amount and diversity of riverbank wildlife. This loss has meant that riverbanks are poorly protected, resulting in increasing levels of erosion. Another effect of the changes has been the spread of Giant Hogweed, Himalayan Balsam and Japanese Knotweed, which do not hold the riverbank together. Consequently riverbank erosion is worsened.

Erosion results in land being washed away, silt being added into the river affecting spawning gravels and finally causing flooding problems.

In addressing this issue we are using the Ribble River Habitat Survey, which enables us to consider suitable areas and stretches requiring planting and fencing in relation to their immediate needs.

It is now our policy of keeping clean those areas that are currently without invasive alien species and also to prevent their spread. The exception is Giant Hogweed where we are implementing a programme of control.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Sustainable Rivers Project to promote the installation of fencing to prevent livestock overgrazing and poaching of river banks.	The Agency	Landowners FWAG. Farmers AC. FA.	NA	✔	✔				
2. Control of Giant Hogweed and Japanese Knotweed.	The Agency	LA. Landowners	NA	✔	✔	✔	✔	✔	

ISSUE 24: THE NEED FOR CONSERVATION AND ENHANCEMENT OF OTTER, WATER VOLE AND WHITE CLAWED CRAYFISH POPULATION TOGETHER WITH OTHER SPECIES SHORTLISTED IN THE UK BIO-DIVERSITY ACTION PLAN.

We are addressing this issue because of the following reasons:

- The Water Vole and the Freshwater White Clawed (Native) Crayfish have legal protection and are also shortlisted in the UK Biodiversity Action Plan. Crayfish are sensitive to both organic and toxic pollutants. A significant example being sheep dips. A further threat is crayfish plague, which is carried by the American signal crayfish.

- An Otter survey carried out in the Ribble area in 1998 confirmed that the current population figures are small and fragile.

- Voles have declined dramatically in recent years, mainly due to predation by Mink and worsening habitat.

As a first step in tackling this issue we started a River Habitat Survey of the Ribble, which is nearing completion. From which a summary report will be produced and made publicly available.

As part of our Sustainable Rivers Project we have organised farm walks in conjunction with the Farming and Wildlife Advisory Group (FWAG). The objective of the farm walks was to demonstrate the benefits of the environmental improvements achieved by the schemes in place. This in turn was also to encourage landowners, other farmers and riparian owners to adopt the practices and methods. Also invited to these walks were nature groups and members of the public, the aim being to increase awareness and appreciation of the work carried out by organisations such as FWAG and the Agency.

The Sustainable Rivers Project fencing and planting schemes have also led to habitat improvements for Otters. Prior to completion of the Water Vole baseline survey all of our regulatory works will now include consideration of the impact on Water Voles.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Complete detailed River Habitat Survey for the Ribble.	The Agency		NA	✔					
2. Promote Sustainable Rivers Project and similar projects.	The Agency	FWAG. Land-owners.	NA	✔	✔	✔	✔		
3. Use baseline Otter survey to identify and refine areas that require habitat improvement:	The Agency	Land-owners.							
3.1. Produce a River Ribble Otter Management Plan.			NA	✔					
3.2. Implement actions identified in the Otter Management Plan.			NA	✔	✔	✔	✔	✔	
4. Undertake baseline survey for Water Vole.	The Agency	LWT. EN. NWW.	£5,000 p.a.	✔	✔	✔	✔		
5. Undertake White Clawed Crayfish survey.	The Agency	LWT. EN.	£11,000 total cost	✔	✔				

ISSUE 25: THE NEED FOR RIVER LANDSCAPE, CONSERVATION, RESTORATION AND ENHANCEMENT.

The urban parts of the Ribble area have a legacy of man-made landscape that offers considerable scope for regeneration and enhancement to benefit both people and wildlife.

We have carried out a river landscape assessment for the Ribble area. This has identified the relative character and condition of the landscape and identified a management strategy for each section of river. The strategy identified:

- Conservation for landscape with good condition and strong character.
- Restoration for landscape that is partly degraded.
- An enhancement strategy for landscapes that are badly degraded and lacking in character.

The vast majority of rivers in the Ribble area were found to have landscapes in good condition and with a strong character. A conservation strategy is proposed for these.

Restoration is proposed for the River Calder where it passes through Burnley Town Centre. And around Padiham the River Calder is also in need of restoration with, in places, enhancement of its own channel and valley landscape. Restoration is also needed where Pendle Water flows from Nelson to the River Calder. This is for the river channel and its surrounding landscape. And restoration is also needed for the River Darwen where it flows from Darwen through Blackburn, additionally further downstream from Higher Walton to the River Ribble. Restoration of the channel and surrounding landscape is required of the River Ribble where it flows through Preston.

We are also looking to involve local communities, local authorities and developers in our restoration programme.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Work with Local Authorities and local communities to address degraded river stretches.	The Agency	LA's Local communities. GWK Trusts.	NA	✔	✔	✔	✔	✔	
2. Publicity of our assessment within local authorities and encourage local authorities to draw up development briefs that respect the river.	The Agency	LA s	NA	✔	✔	✔	✔	✔	

ISSUE 26: ENVIRONMENTAL IMPACT OF FLY-TIPPING.

The dumping of wastes at sites other than at legal waste management sites is commonly known as fly-tipping. It is a common problem throughout the Ribble area, but we are aware that there are "hot-spots", particularly in the Fylde area, which has suffered badly from this activity for years.

The illegal deposit of household, commercial and industrial wastes can have many implications, including pollution of land and adjacent watercourses and may also present a hazard to the public. To make matters worse there have been instances of illegal deposits of asbestos in public access areas. These are of particular concern due to the widely recognised potential hazards associated with asbestos.

To help resolve this issue and raise awareness we have initiated a series of seminars involving Local Authorities within the Ribble LEAP area. And we have also involved other councils covering the wider County of Lancashire and its neighbouring areas.

Two seminars have been held, at which the following organisations attended one or both:

- Blackburn with Darwen B.C.
- Blackpool B.C.
- Burnley B.C.
- Chorley B.C.
- Craven B.C.
- Fylde B.C.
- Hyndburn B.C.
- Knowsley M.B.C.
- Lancashire Police.
- Lancaster City Council.
- Liverpool City Council.
- Pendle B.C.
- Preston B.C.
- Ribble Valley B.C.
- Sefton Council
- South Ribble B.C.
- Tidy Britain Group
- West Lancs D.C.
- Wigan M.B.C
- Wyre B.C.

A Joint Working Party has been established, and a liaison group, consisting of these organisations. A structured agenda for dealing with the issue of fly-tipping is being worked on and a targeted campaign aimed at "hot spots" is also under discussion.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Set up a joint working party involving interested parties e.g. Local Authorities and police to share information and ensure a targeted approach to fly-tipping enforcement with a targeted campaign on the effects of fly-tipping and the penalties for fly-tipping.	The Agency	LAs Police. Tidy Britain Group.	NA	✔	✔	✔	✔	✔	
2.Increase monitoring and enforcement, particularly in known "hot spots" making use of innovative technologies e.g. CCTV cameras.	The Agency LA	LAs Police.	NA	✔	✔	✔	✔	✔	
3. Actively encourage landowners to remove fly-tipped waste, making use of appropriate legislation to enforce site clean-ups where practicable.	Land-owner. LA	The Agency	Clean-up costs on a site-by-site basis.	✔	✔	✔	✔	✔	
4. Include removal of fly-tipped waste in offenders rehabilitation programmes.	The Agency Probat-ion Service.		Staff costs only.	✔	✔	✔	✔	✔	
5. Educate local population with leaflets, press releases in local newspapers and local authority newsletters on penalties for fly-tipping.	The Agency LA		NA	✔	✔	✔	✔	✔	
6. Improve security in problem areas and where practicable restrict access.	Land-owners	The Agency	Costs will differ on site-by-site basis.	✔	✔	✔	✔	✔	

ISSUE 27: ILLEGAL TIPPING AT SANSBURY QUARRY.

The Sansbury Quarry site in Colne, East Lancashire has been operating as a landfill site without a waste management licence for over ten years. In November 1997 an uncontrolled fire started at the site, which became deep-seated and has continued to burn underground. We took steps to control the blaze and reduce its effect on the environment and local residents. The site has now been monitored closely for further signs of fire. Enforcement action has been taken against the site operators and the site is no longer operating. But a legacy of non-inert waste material and its associated pollution potential remains.

We expect the remediation and restoration of the site to be difficult. This means that the site will remain as a problem for Colne residents and the surrounding area. Also property owners downstream of Sansbury Quarry have expressed concern about the impact of the site and the reduction in the aesthetic quality of the surrounding countryside. The production of landfill gas is also a potential problem.

Phase 1 has been completed at a cost of £10,000. Completion of this phase has identified requirements for Phase 2. This will start in financial year 2000/01 and will involve installing boreholes and a subsequent monitoring programme.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Carry out an environmental risk assessment of the site.	The Agency	Land-owner. LCC. Pendle B.C.	£10,000	✔					
2. Carry out any required remedial action to overcome identified risks and thus the potential of the site to restore the area to a useful purpose.	The Agency	Land-owner. LCC. Pendle BC.	NA	✔	✔	✔			

Glossary:

Non–inert waste – waste that may undergo a significant physical, chemical or biological transformation. It may dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter which it comes into contact in a way likely to give rise to environmental pollution or harm human health.

ISSUE 28: THE ENVIRONMENTAL IMPACT OF UNSUSTAINBLE BUSINESS PRACTICES.

Recent years have seen increasing demands being placed on companies by legislation and regulation to improve environmental performance. There is also a growing awareness by consumers and supply chains of the importance of improved environmental performance. The combination of these factors has meant that industry is becoming increasingly aware of the significant savings that can be made through good waste management, sound environmental practices and working collectively. We believe many companies are paying more than is required for waste disposal and can also achieve efficiency savings in raw material and energy usage, whilst also reducing insurance costs.

The Walton Summit Green Business Group has 39 companies that have signed up to the initiative so far. Two partnership organisations (the Environment Agency and South Ribble Borough Council) are playing a leading role. Member organisations are mainly from Small-to-Medium size Enterprises (SMEs) and light industry concerns. The steering group membership is drawn from the 39 companies and the representatives from the two partnership organisations. The aim of the programme is to improve both the environmental performance and competitiveness of individual businesses. And to bring together companies for wider business park improvement e.g. signage and appearance. We compiled a questionnaire, which was sent to all companies on the business park. The objective of the questionnaire was to establish an "environmental footprint" of the business park's impacts.

This "environmental footprint" examines the various aspects involved in the business parks operations, such as the number of companies operating and their industrial sector, number of employees, total area used by the companies and it also sets a benchmark in relation to waste minimisation for water, energy and material usage. The objective of the footprint is to measure the environmental improvements achieved over a twelve-month period.

We have already organised workshops covering security and waste minimisation. The workshops gave practical help to each of the companies in crime prevention and theft and also reducing their waste output. The effect of waste minimisation will provide long–term environmental and business benefits. To verify the success of this initiative we have offered, to the companies, a contribution of 50% towards the cost of a waste audit, which will be carried out by Groundwork Trust.

Further workshops planned include:

- Energy Efficiency
- Water Efficiency
- Packaging Waste Regulations – this will answer the question of do they affect particular companies.
- ISO 14001 – Environmental Management Standard and Supply Chain.
- Transport

We can always provide further information and advice on any of the above topics.

In relation to implementing the Sustainable Water East Lancs (SWEL) project we now have 10 companies from East Lancashire participating, all at different stages. Some are implementing schemes to improve water usage and/or drainage, others are being advised regarding possible problems.

Business Environment Associates (BEA) Water Advisor has carried out water audits on some sites, making site visits and establishing contacts at the companies. We have also distributed leaflets and organised seminars on SWEL. We are also actively promoting efficient use of water in manufacturing processes and the use of Sustainable Urban Drainage Systems (SUDS).

A Green Business Park is planned for three East Lancashire industrial estates at Shuttleworth Mead, Altham and Simonstone. A launch for the project was well attended by 15 local companies.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Continue to develop Walton Summit Green Business Park.	The Agency with the steering group.		£12,000 p.a.	✔	✔	✔	✔	✔	
2. Promote good practice. Identify and rectify any site drainage problems and site contamination including remediation where appropriate. Promote good house-keeping.	The Agency.	Owners/ Occupiers. LA. NWW	NA	✔	✔	✔	✔	✔	
3. Water Management campaign in Blackburn and Pendle.	The Agency.		NA	✔					
4. Implement SWEL project: promote efficient use of water resources and SUDS.	The Agency		£44,000 Total cost	✔	✔				
5. Develop Green Business Park concept at Shutlleworth Mead, Simonstone and Altham Industrial Parks.	The Agency	BEA, Local Businesses	£1,000	✔	✔				

Glossary:
SWEL – Sustainable Water East Lancashire.
SUDS – Sustainable Urban Drainage Systems. A system which involves mimicking the natural drainage from a site as much as possible to minimise the impact of the development on the water environment.

ISSUE 29: THE UTILISATION OF WASTE FOR ENERGY TO REDUCE EMISSIONS TO THE ENVIRONMENT FROM LANDFILL SITES.

The break down of waste in a landfill site can generate landfill gas, which is mainly methane. There are various methods for dealing with build up of gas, from simple venting to burning it to produce energy. Sufficient levels of landfill gas burning can turn the methane into carbon dioxide; this has less effect on the environment.

To encourage the use of landfill gas to be used as a fuel the Non-Fossil Fuel Obligation (NFFO) scheme allows preferential rates to be paid for energy produced in this way. This scheme will be used to install equipment at Clifton Marsh Landfill Site.

At Henthorpe Road Landfill Site not even gas is produced to be used as a commercial fuel so for safety reasons the gas that is produced will flared.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1.Implement gas extraction and energy recovery at Clifton Marsh Landfill Site.	LWS		NA	✔	✔				
2. Implement gas flaring at Henthorne Road Landfill Site.	LWS		NA	✔	✔	✔	✔		
3. Encourage gas extraction and recovery, where feasible, at other waste management sites.	The Agency	Site Oper-ators.	NA	✔	✔	✔	✔	✔	

ISSUE 30: PUBLIC CONCERN REGARDING AIR QUALITY IN THE OSWALDTWISTLE AREA.

There are concerns amongst residents in the Oswaldtwistle area relating to the impact of releases from Nipa Laboratories on air quality. Following gas releases on two separate occasions in May and November 1998 we undertook a site audit. The audit investigated the chemical process activities, waste management and water effluent issues.

The site audit report for Nipa Laboratories has now been completed and sent to the company for comment. The report recommendations will form the basis of a site action plan, which will enable improvements to be carried out on the site. The report will be available to the public in early summer 2000.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Make the site audit report findings, carried out at Nipa Laboratories, Oswaldtwistle available to the public.	The Agency	Nipa Labs.	NA	✔					
2. Seek improvements on the site.	The Agency	Nipa Labs.	NA	✔	✔				

ISSUE 31: PUBLIC CONCERN REGARDING AIR QUALITY IN THE CLITHEROE AREA.

There are concerns from some residents in Clitheroe and the surrounding areas about the impact of releases from Castle Cement Ltd on air quality and human health effects.

We have informed local people about our measures to raise awareness of how we regulate this site and improve the environment.

We consulted local residents when Castle Cement wanted to change their Authorisation. We did this by holding local surgeries which involved interviews on a one-to-one basis between our officers and members of the public. We let people know about the surgeries by using the local papers and also by individual letters to 390 residents. We have also been available outside normal working hours to attend meetings of other organisations, an example being attendance at a local Friends of the Earth meeting.

We also issue a press release when we take enforcement action. Information has also been submitted on site improvements and release reduction to our national Corporate Plan, which is publicly available.

To further raise awareness of our activities within the Clitheroe area relating to air quality issues there are now two fixed air quality monitoring points (one of which is owned by the Agency). These are located facing different wind directions relative to Castle Cement. These fixed monitoring points enable us to record air quality at two separate locations in the Clitheroe area. The information obtained will help us to assess the impact of the regulated processes in the area.

Actions	Responsibility		Est. Agency costs	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	Future
	Lead	Other							
1. Raise awareness of regulatory activities and environmental improvements.	The Agency	Castle Cement RVBC.	NA	✔	✔	✔	✔	✔	✔

Partnerships

We are actively involved in the promotion of partnerships 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 Ribble LEAP area we have been involved in various projects, working in collaboration with others, these are as follows:

Project	Grid Reference	Partners	Project Aims
Accrington UFDP	SD 758 282	Hyndburn Borough Council Groundwork Trust Residents Association	The aim of the project is to develop Platts Lodge, which is located in the middle of Accrington. The project will result in regeneration and provision of a community area, which will be accessible to the residents and angling clubs of Accrington. The site will be made safe, with paths and fishing pegs installed. Extensive planting schemes will improve the aesthetic appeal and environmental potential.
Long Preston beck Habitat Improvements	SD 840 580	Yorkshire Dales Millennium Trust (YDMT). Settle Anglers.	The aim of the project is to instate buffer strips along lengths of the beck. This will improve the environmental potential, in particular salmonid spawning success, by the provision of juvenile habitat. 80% funding has been secured for financial year 2000/2001 from YDMT. Work will involve the exclusion of stock using fencing and reinforcement of bank side with planting schemes and willow raddling.
Hodder Habitat improvements (Leader 2)	SD - Hodder catchment	Ribble Catchment Conservation Trust	The aim of the project is improve salmonid productivity on the Hodder catchment as a whole. Five spawning becks have been identified and work has been progressed on all becks; Birkett, Foulscales, Loud, Croasdale and Easington. Work involves bank protection by planting and stock exclusion using fencing.

Project	Grid Reference	Partners	Project Aims
Low flows amelioration on Hodder.	SD 653 530	North West Water.	The aim of the project is to reduce low flows, in particular on Rivers Brennand and Whitendale of the Hodder catchment. The increased flows should improve productivity for salmonids along these reaches. The work will involve discussion with NWW regarding alternative abstraction points.
Bank stabilisation on Main Ribble (Grindleton Bridge).	SD 760 450	North West Water Lancashire County Council Clitheroe Anglers.	The aim of the project is to retard the effects of large-scale erosion on the main River Ribble at Grindleton. This will also have the effect of saving a section of the Ribble Way, which is threatened by erosion. The work will involve careful placement of boulders to re-direct flow away from the affected area, stock exclusion and planting schemes.
Padiham Millennium Festival	Padiham	Over 50 partners including: Private, community and public organisations e.g. The National Trust, Gawthorpe Environment Movement, Burnley Borough Council.	The aim is to engage, activate and excite local communities and also to leave a legacy of environmental improvements.
Padiham Weir Multi-use passage scheme.	Padiham Weir SD 788 331	British Canoe Union, Burnley Kayak Club, East Lancs Partnership (ELP), RIE Ltd.	Installation of multi-use structure providing fish passage and canoe facility. This project is at the planning stage only.
Sustainable Water East Lancashire Project	East Lancashire Area	Groundwork Business Environment Association (East Lancs)	To promote the adoption of good water management practices covering 2 key areas: i) promoting the efficient use of water resources within East Lancs businesses. ii) to raise awareness of water catchment issues and promote the development of sustainable urban drainage systems within East Lancs area.
Wet Search Project	Various throughout the NW	RSPB, English Nature	To identify and shortlist sites in the North West that are suitable for the creation/restoration of wetlands and lowland wet grassland.

Project	Grid Reference	Partners	Project Aims
Bowland Initiative	Various sites throughout the Forest of Bowland area of outstanding natural beauty	MAFF, Farming and Rural Conservation Agency, Lancashire Wildlife Trust	To develop an integrated approach to the economic and rural economy issues in the uplands.
Riverside Improvement Project, Burnley	Burnley town centre	Burnley Borough Council	To make the town centre riverside a valuable amenity and enhance the urban environment.
Countryside Stewardship Scheme	Throughout the North West	MAFF, FRCA, FWAG	Through the process of payments to farmers, encourage land management practices that will improve the natural beauty and diversity of the countryside.
Sustainable Rivers Project	Main River Ribble and its tributaries	FWAG, Landowners	To promote the sustainable management of rivers.
Sustainability in Action	Tinker Brook Nursery, Oswaldtwistle SD73092608	Prospects, Local NHS Trust and primary schools, local community and conservation groups, LWT	Adopt an old garden nursery to promote local green initiatives.
Towneley Hall Permaculture Project	Towneley Hall, Burnley SD856307	Groundwork East Lancs, Offshoots, Greenspace	Create an educational and wildlife feature
Water Vole Project	Throughout the EA NW Central Area	LWT and local authorities and conservation groups	Survey the Environment Agency NW Central Area for Water Voles.

APPENDIX 1: The Routine Work of the Agency.

On a day-to-day basis we carry out a large environmental monitoring and regulatory operation, most of which is to achieve statutory requirements. The aim of regulation is to balance the needs of people and the environment. We work to:

- save, redistribute and improve river, lake, reservoir and underwater supplies.
- prevent and control pollution of air and water.
- reduce the risk of harm from contaminated land and bring it back into use.
- make sure waste is dealt with safely and legally.
- make sure radioactive materials are kept, used and disposed of safely.
- make sure flood risks are not created or exacerbated.

Regulating the environment takes place through licensing and consents. We regulate the abstraction of water from rivers and boreholes, releases to air, land and water, the carrying and disposal of waste and to carry out work in, over, under or near a watercourse.

We monitor the environment to ensure that pollution is controlled and resources are adequately protected. We regularly monitor the quantity and quality of rivers, estuaries and the sea and check emissions from the processes we regulate. Results are reported on a public register that can be inspected at our main offices. We run a 24-hour service for receiving reports of and responding to flooding and pollution incidents and emergencies in the air, water or on land. We also work with others to reduce the risk of harm from contamination and to bring back land into good use.

We work to minimise waste and prevent pollution through advice and education, including national campaigns and through working with environmental regulators. When necessary, we are prepared to enforce environmental legislation in a tough way. Those who show little regard for the law and who cause blatant and persistent damage to the environment can expect to be prosecuted.

We also have the role of reducing the risk to people and the environment from flooding by providing effective defences. Protecting life is our highest priority and to meet this aim we provide a flood forecasting and warning system and discourage development in flood-risk areas.

We are responsible for maintaining, improving and developing fisheries. We regulate fisheries by issuing licenses for rod angling and net fishing. We carry out improvements to fisheries by improving the habitat and fish stocks and providing advice to fishery owners. We also seek to ensure that wildlife, landscape and archaeological heritage are protected both in any work we carry out and in work carried out by others.

Our principal aim for recreation is to protect, improve and promote the water environment for recreational use. We do this by protecting existing use, creating opportunities in the course of our work and by maximising the use of our owned sites for recreation.

APPENDIX 2: Environment Agency Leaflets and reports available from the Central Area Office of the North West Region.

Listed below is a selection of leaflets available from the Environment Agency. It is intended as a guide to the type of information available rather than a complete list, as new leaflets are being produced. The list does not include policy documents or technical reports.

General Information
An Environmental Strategy for the Millennium and Beyond.
Customer Charter – September 1997.
The Environment Agency of England and Wales.
The Environment Agency in the North West of England.
Environment Agency – Aim, Objectives, Work.
About the North West – fact file.
Guardians of the Environment.
A Guide to Information Available to the Public.
Our Complaint and Commendations Procedure.
Who's Who in the Environment Agency – North West.
Agency Emergency Hotline – 0800 credit card size.
Corporate Plan Summary.
Annual Report and Accounts

Education
Activity Book – for Primary School Children.
Pack for Key Stages 1and 2 for Primary School Children.
Helping protect the Environment – (colour in) poster.
Understanding your Environment – poster.

Waste Regulation
Classification of Special Waste – Information Sheet 1.
Use of the Consignment Note – Information Sheet 2.
Special Waste Regulations 1996 – How they affect you.
North West Statistics
New Packaging Regulations - How they affect you.
Farm Waste Minimisation.
What a Waste! Leaflet.

Fisheries and Recreation.
Fisheries North West – brochure.
Fisheries in the North West – fact file.
Rod Fishing Licences – 1999/2000.
Anglers and the Agency.

Ecology
Mink
Guidance for the Control of Invasive Plants near Watercourses.
Conservation.
Understanding Riverbank Erosion.
Riverlife from Source to Sea.
Ponds and Conservation.
Pond Heaven.
The Habitat's Directive.
Aquatic Weed Control.
Phytophra disease of Alder.

Flood Defence
Flood Defence – North West –brochure.
Paying for Flood Defence.
Main River – fact file.
Maintaining Watercourses – fact file.
Understanding buffer strips.
Development with Flood Risk Implications.
Flood Warning Information – for the Deaf and Blind.
Flood Warning Information – What to do if your property is at risk.
Policy and Practice for the Protection of Floodplains.

Pollution Control
Environmental Protection and Pollution Control –North West – brochure.
EC Directives and the Control of Water Pollution – fact file.
Bathing Water Quality Summary Report 1999.
A Guide to Environmental Quality & Pollution Control – booklet.
Looking After Our Rivers.
Agricultural Pesticides and Water.
Pollution Prevention Pays.
Building a Cleaner Future.
Blue Green Algae.
Discharges to Controlled Waters -current charges.
Home Pollution and how to avoid it.
River Pollution and how to avoid it.
Silage Pollution and how to avoid it.
Farm Pollution and how to avoid it.
Farm Waste Management Plans.
Farm Waste Regulations.
Chemical Pollution and how to avoid it.
Solvent Pollution and how to avoid it.
Making the right conenction.
Natures Way – Designs that prevent water pollution.
Whats Hidden Behind your Garden Fence? (Water Watch).
Groundwater Pollution.
The Use of Licences to Prevent Pollution.

Water Resources
Water Resources – North West –brochure.
Annual Abstraction Current Charges.
Spray Irrigation.

IPC/RAS
Integrated Pollution Control Current Charges.
Radioactive Substances Act Regulation Current Charges.

Catchment Management / Environment Agency Action Plans
Alt / Crossens Catchment Management Plan – Consultation Report/Action Plan/ First Annual Review.
Alt / Crossens Local Environment Agency Plan – Consultation Report.
Douglas Catchment Management Plan – Consultation Report/ First Annual Review/ Second Annual Review.
Douglas Local Environment Agency Plan – Consultation Report / Action Plan.
Ribble Catchment Management Plan – Consultation Report/First Annual Review/Second Annual Review.
Ribble Local Environment Agency Plan – Consultation Report / Action Plan.
Lune Local Environment Agency Plan - Consultation Report / Action Plan.
Wyre Local Environment Agency Plan - Consultation Report / Action Plan/ First Annual Review.

APPENDIX 3: List of Respondents.

Local Authorities.
Blackburn with Darwen Borough Council.
Burnley Borough Council.
Hyndburn Borough Council
Lancashire County Council.
South Ribble Borough Council.

Parish Councils.
Lea Parish Council.
Ribchester Parish Council.

Public Organisations.
Coal Authority.
English Heritage.
English Nature.
Joint Countryside Advisory Group.
Ministry of Agriculture, Fisheries and Food.
North West Tourist Board.

Water Companies.
North West Water.

Voluntary Organisations.
British Association for Conservation and Shooting.
British Canoe Union.
Inland Waterways Association.
Lancashire Wildlife Trust.
National Trust.
Ramblers Association.
Royal Society for the Protection of Birds.
Scouts (Clitheroe Water Activities Club).
Sustrans.
The Ribble Link Trust.

Angling Clubs.
Black Moss Fly Fishery Association.
Ribble Fisheries Association.

Members of Parliament.
Right Hon. Mr Michael Jack MP.

Individuals.
D. Clapp.
L.England.
B.Jones.
J.McCarthy.

Other Organisations.
British Hydropower Association.
NorthWest Water and the Wildlife Trusts Otters and Rivers Project