

EA-~~EA~~ NORTH EAST LEAPs - Box 2



local environment agency plan

SWALE, URE AND OUSE

ACTION PLAN

JULY 1998



ENVIRONMENT
AGENCY

EXECUTIVE SUMMARY

The area contained within the Swale, Ure and Ouse Local Environment Agency Plan (LEAP) is a geographically diverse area including the protected uplands of two National Parks, rural countryside, the Port of Selby and the historical city of York. The Environment Agency is one of many organisations which protect the fragile and important Swale, Ure and Ouse area.

This Action Plan outlines the strategy for activity that the Agency intends to undertake in partnership with others in the Swale, Ure and Ouse area during the next five years. Within this plan, a number of actions have been accepted by the Agency and other organisations.

Key Actions for the Swale, Ure and Ouse Area:

- prevent pollution from rural activities;
- reduce the impact of discharges, in particular to the River Ouse;
- protect the natural beauty and conserve the native flora and fauna;
- limit the impact on the environment of mining in the Selby area;
- protect the groundwater resources and minimise the impact of recent and future droughts;
- reduce the environmental impact from industrial sites by improved operational practice;
- protect people and property from flooding where economically and environmentally feasible.

The Environment Agency must work in partnership with others to carry out certain environmental improvements. There are significant opportunities to further improve effluent disposal, to minimise pollution from rural land uses and the impact of mining on the environment and to promote best practice to better protect the environment.

Education, in its many forms, is seen as the key to environmental protection and enhancement on both organisational and individual levels. The Activity Plan includes a number of initiatives aimed at raising awareness in the Swale, Ure and Ouse area including working with young people, industry and landowners.

The Activity Plan set out in Section 4 forms an integral part of this Action Plan and establishes a timetable of actions to resolve issues and take opportunities within the plan area.



ENVIRONMENT AGENCY

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PLAN AREA

**SWALE, URE AND OUSE AREA
ADMINISTRATIVE BOUNDARIES**



- KEY**
- CATCHMENT BOUNDARY
 - RIVER
 - ADMINISTRATIVE BOUNDARY
 - MAIN ROAD

EAST RIDING OF YORKSHIRE

KEY DETAILS

Area: 3,286 km²

Estimated Area
Population: 250,000

ADMINISTRATIVE DETAILS

County Councils: North Yorkshire

Unitary Authorities: East Riding of Yorkshire
Leeds City
City of York

District Councils: Eden
Hambleton
Harrogate
Richmondshire
Ryedale
Selby
Teesdale

Water Companies: Northumbria Water Ltd
Yorkshire Water Services Ltd
York Waterworks Company Plc

National Parks
Authorities: Yorkshire Dales
North York Moors

Navigation
Authorities: British Waterways - Ripon Canal,
Selby Canal, Ouse and Ure;
Linton Lock Commissioners -
Linton Lock;
City of York Council - the Foss

Internal Drainage
Boards: Acaster, Bedale and Upper Swale,
Claro, Cod Beck, Foss, Kyle and
Upper Ouse, Lower Ouse, Lower
Swale, Marston Moor, Ouse and
Derwent, Selby, South Wharfe,
Wiske.

AREA INFORMATION

INDUSTRY

Number of IPC Authorisations: 16
Number of IPC sites: 8
Number of Radioactive Substances Authorisations: 3
Number of Radioactive Registrations: 34

WATER ARISING

Number of Waste Management
Licences: 63
Number of Licensed Waste Carriers: 100 (approx)
Total Waste Arisings: 750,000 tonnes

WATER QUANTITY

Number of Licensed Surface
Water Abstractions: 590 (1996)
Number of Licensed Groundwater
Abstractions: 413 (1996)
Total Volume of Authorised
Abstractions: 30,108 thousand
cubic metres/year

WATER QUALITY

Number of Consented Sewage
Discharges: 1,875
Number of Consented Industrial
Discharges: 47

FLOOD DEFENCE

Length of Raised Flood Defences: 244 km
Number of People and Property
Protected: 6,600 House
Equivalents

ECOLOGY AND FISHERIES

Number of SSSIs: 55
Number of AONBs: 2

VISION - THE SWALE, URE AND OUSE

The Swale, Ure and Ouse area covers a geographically very diverse landscape from the protected, designated uplands of the two national parks through the city of York to the Port of Selby. This diversity in landscape and heritage attracts many visitors to the area each year, whether this be for recreational activities in the national parks or simply to enjoy the pleasures of the city of York. Most of the area is rural, with the population and industry being concentrated around York and Selby in the south.

Given such contrasts, there are numerous opportunities for the Agency to work together with the wider community for the benefit of the environment. The challenge of managing the environment is in effectively responding to the range of pressures on the area and reconciling all the uses demanded of it, whether for agriculture, industry, water supply, waste disposal, fisheries, conservation, recreation or protection from flooding.

Within the Swale, Ure and Ouse area, effluent disposal, pollution from rural land uses, the impact of mining on the environment and the impact of drought are issues considered to be particularly important.

Key Environment Agency aspirations for the Swale, Ure and Ouse area are to:

- prevent pollution from rural activities;
- reduce the impact of discharges, in particular to the River Ouse;
- protect the natural beauty and conserve the native flora and fauna;
- limit the impact on the environment of mining in the Selby area;
- protect the groundwater resources and minimise the impact of recent and future droughts;
- reduce environmental impacts from industrial sites by improved operational practice;
- protect people and property from flooding where economically and environmentally feasible.

Finally, the Agency wishes to establish strong involvement and links with local authorities, water companies, internal drainage boards, industry, landowners, farmers, environmental organisations and the general public to ensure local views are respected when future development decisions are made for the area. It will therefore work with all relevant parties to implement the principles of sustainable development.

CONTENTS

	Page no.
1.0 Introduction	2
1.1 The Role of the Environment Agency	2
1.2 Local Environment Agency Planning - The Process	2
1.3 Environment Agency Responsibilities and Activities	3
1.4 Sustainable Development	4
2.0 Area Description	5
2.1 Introduction	5
2.2 Air	5
2.3 Land	5
2.4 Water	7
2.5 Wildlife and Heritage	8
3.0 The Consultation Process: A Review	11
4.0 Activity Plan	12
5.0 Protection Through Partnerships	31
6.0 Future Review and Monitoring	33
Appendices	
Appendix A The Environmental Strategy for the Millennium and Beyond	
Appendix B Glossary	
Appendix C Abbreviations	



1.0 INTRODUCTION

the next five years.

1.1 THE ROLE OF THE ENVIRONMENT AGENCY

The Environment Agency for England and Wales was established on 1 April 1996 and aims to provide high quality environmental protection and improvement. Its creation is a major and positive step forward, merging the expertise of the former National Rivers Authority, Her Majesty's Inspectorate of Pollution, the Waste Regulation Authorities and certain sections of the Department of the Environment (DoE), to create a new organisation taking an integrated approach to environmental protection and enhancement. This integrated approach, along with an increased level of public participation, will help the Agency and the community work towards the world-wide environmental goal of sustainable development.

The Agency's vision is:

A better environment in England and Wales for present and future generations.

It will:

- protect and improve the environment as a whole by effective regulation, by its own actions and by working with and influencing others;
- operate openly and consult widely;
- value its employees;
- be efficient and businesslike in everything it does;

1.2 LOCAL ENVIRONMENT AGENCY PLANNING - THE PROCESS

The aim of a Local Environment Agency Plan is to identify, prioritise and cost environmentally beneficial actions which the Agency and consultees will work together to deliver.

This is achieved by:

- focusing attention on the environment of a specific area;
- involving interested parties in planning for the future of the area;
- establishing an integrated plan of action for managing the local environment over

The Agency seeks active input into Local Environment Agency Plans (LEAPs) from individuals or organisations concerned with the environment. The Agency would wish to see the document used to influence and/or assist in the planning processes of others where their decisions may impact on the management of the environment.

LEAPs are the successors to the Catchment Management Plans produced by the National Rivers Authority. These plans do not replace the local authorities' local plans but should be regarded as complementary to them.

The process of Local Environment Agency Planning involves several stages, as outlined below.

The Consultation Report

The Swale, Ure and Ouse Local Environment Agency Plan is one of a number of plans produced by the North East Region of the Environment Agency.

The publication of the Consultation Report marked the start of a three month period of formal consultation which enabled external organisations and the general public to work with the Agency in planning the future of the environment in the Swale, Ure and Ouse area.

The Consultation Report described the area, reviewed the state of the local environment, identified the environmental issues which needed to be addressed then made proposals for action to address them.

The purpose of consultation is to:

- establish the current state of the local environment;
- obtain views on the issues facing the environment;
- begin the process of formulating and implementing an Action Plan.

The Action Plan

The Local Environment Agency Action Plan includes:

- a final vision for the Swale, Ure and Ouse area;
- a policy framework based on identified

issues for the management of the environment over a five year period;

- costed action plans to address identified issues.

These elements have been prepared following the period of consultation and full consideration given to the responses received.

The Agency will monitor the implementation of the plan through regular consultation both internally and with committed parties. Although these plans are non-statutory their aim is to provide a framework for the integrated management of the local environment through the corporate action of the Agency and other bodies.

Annual reviews

The Agency is jointly responsible, with other organisations and individuals, for implementing the Action Plan. Progress is monitored and reported annually by means of an Annual Review.

Full Review

A full review will normally be undertaken every five years. At this stage, a new Consultation Report will be produced and the plan re-examined to identify new issues.

Routine Work of the Agency

The strategic nature of LEAPs as a planning tool means that the plans are not designed to reflect fully the Agency's routine duties within the area. The Agency's everyday work commits substantial resources to managing the environment. This work is detailed in the Consultation Reports.

1.3 ENVIRONMENT AGENCY RESPONSIBILITIES AND ACTIVITIES

The Agency has head offices in Bristol and London and operates across eight regions and 26 areas in England and Wales. The Swale, Ure and Ouse area lies within the Dales Area of the North East Region. The Dales Area is one of three Areas in the Region.

The Agency has responsibility for:

- the maintenance, improvement and regulation of water quality and water resources;
- flood defence;
- fisheries;
- water pollution control;
- the regulation of the most potentially polluting industrial processes (Part A processes);
- the regulation of premises that use, store or dispose of radioactive materials;
- licensing and regulation of waste management facilities;
- licensing and regulation of waste carriers and brokers.

To meet these responsibilities and to address the current environmental issues, the Agency has drawn up an Environmental Strategy for the Millennium and Beyond. The Strategy is essentially based on the need to take an integrated approach to the management of the whole environment at any one time, to identify the pressures which affect that state and then to identify the appropriate responses which need to be made. The Strategy focuses on nine themes which relate to our principal and immediate environmental concerns and these are detailed in Appendix A.

The Agency has general duties with regard to conservation and recreation and it shares many of its responsibilities with Local Authorities, in particular waste management and the regulation of emissions to air.

Statutory Committees

The North East Region is served by four committees:

- Regional Environmental Protection Advisory Committee (REPAC);
- Regional Fisheries, Ecology and Recreation Advisory Committees (RFERAC);
- two Regional Flood Defence Committees (RFDC);

Membership of the committees consists of local people drawn from the community including industry, agriculture, local authorities and environment groups. The Agency is required by law to consult the committees on all aspects of its work. The RFDC has executive powers with regard to the discharge of the Agency's flood defence duties.

Area Environment Groups

The Dales Area is served by two Area Environment Groups. Membership consists of local people who live and work in the area and who represent a wide spectrum of interests, including local authorities, industry, agriculture, conservation, amenity and recreation; also riparian owners. The Groups advise the Agency on LEAPs, the delivery of local services and act as a link between the local community, the Agency and its statutory committees.

- renewable or effects may be irreversible; those responsible for causing pollution will bear the cost.

Whilst exercising its duties the Agency will have to make decisions about these guidelines in particular cases. Sometimes environmental costs have to be accepted as the price of economic development but, in some cases, a site, an ecosystem, or some other aspect of the environment may be regarded as so valuable it must be protected from exploitation.

1.4 SUSTAINABLE DEVELOPMENT

The goal of sustainable development, which is supported by the UK Government is reflected in the Agency's vision statement and requires economic and social activities in England and Wales to be undertaken within the carrying capacity of the environment.

The economy, society and the environment cannot be considered in isolation from each other as they form a dynamic system that is in constant change. Environmental management therefore requires an integrated approach to sustainable development.

Integrated environment management embracing action, regulation, education and enforcement is a means by which the Agency can promote sustainable development, and LEAPs are an important part of this process.

The Agency will continue to make decisions at both policy and operational levels with regard to environmental impacts. However, there are areas that need to be developed and, because in many ways the environment is shared, the Agency seeks to encourage collective action.

The Agency will use the following guidelines whilst seeking to implement the principles of sustainable development:

- Decisions will be based on the best possible scientific information and analysis of risks;
- Where there is uncertainty and potentially serious risks exist, a precautionary approach will be adopted;
- ecological impacts must be considered, particularly where resources are non-

2.0 AREA DESCRIPTION

2.1 INTRODUCTION

The Swale, Ure and Ouse Plan covers an area of over 3200 km². The area extends from the high ground of the Pennines in the north and west which is shaped by the underlying limestone, to the lower ground of the Vale of York.

Although the area is predominantly rural with most of the population living in the urban areas of Richmond, Thirsk, Ripon, Northallerton, York and Selby, there is significant industry in some of the smaller towns and villages in the extreme south; the rural village of Drax, for example, is home to Western Europe's largest coal-fired power station. The area borders the traditional coal-fields of South Yorkshire and includes part of the large Selby coalfield.

The area is crossed by several major road and rail links including the A1, A19 and A64 and the East Coast Main Line. The tidal River Ouse is an important navigational route as far as the Naburn Weir.

The area includes, in whole or in part, one county council, three unitary authorities, seven district councils and two national parks. The total population of the area is in the region of 250,000 permanent residents (based on the 1991 Census figures) although the number of day-visitors and holiday-makers during the year runs to several million people.

A brief description of each local government unit is given below.

The County of North Yorkshire

Five districts within the County of North Yorkshire are included in whole or in part in this Plan: Hambleton; Harrogate; Richmondshire; Ryedale; and Selby. Much of this area is rural/agricultural and is characterised by a dispersed settlement pattern of market towns, villages and hamlets.

Unitary Authorities

Although a small area (approx 270 km²), the City of York Unitary Authority has a relatively large population of 104,400 in the York urban area. The

Plan also includes small parts of Leeds and East Riding of Yorkshire unitary authorities.

Yorkshire Dales National Park Authority

The Park covers 1,760 km² and has a population of around 19,000 permanent residents, although it receives millions of day visitors per year. Despite fluctuations in the numbers of visitors to the park, the overall trend is one of a steady increase. Most of the Park is contained within the North Yorkshire County District of Richmondshire.

North York Moors National Park Authority

The North York Moors National Park covers an area of 1,436km² and has a population of around 25,000 permanent residents, although it also receives millions of day visitors per year. There is a steady increase in the number of visitors to the park.

Under the Environment Act 1995, all the national parks in England and Wales assumed (on 1st April 1997) the role of the local planning authority as defined by the various Town and Country Planning Acts.

2.2 AIR

Air Quality

Most of the area is rural in nature and as such air quality is "good", mainly being affected by agricultural activities, domestic fuel burning, road traffic and smaller scale industries (regulated by local authorities). These smaller industries tend to be concentrated on many industrial estates scattered throughout the area.

Obvious exceptions to the rural nature of the area are the large power stations to the south of the area. Although only one, Drax, is within the Plan area (see Issue 12), all three affect the air quality in the area and indeed far beyond.

2.3 LAND

Topography

There is a wide variation in topography within the plan area reflecting changes in the underlying geology. In the north and west, the Pennines consist of a plateau dissected by the steep, narrow valleys of

the rivers Swale and Ure. Most of the upland area is more than 600m above sea level, reaching a maximum height of 716m above sea level at the summit of Great Shunner Fell. This fell separates the headwaters of the River Ure from those of the River Swale and exhibits the "step topography", typical of parts of the Yorkshire Dales, where there are alternating sequences of shales, limestones and sandstones.

Swaledale and Wensleydale initially extend eastward towards the Vale of York, through hills that gradually decrease in height and then their rivers turn southwards to flow through the Vale of York towards the Humber estuary. The Vale of York is a flat low lying area between the Pennines on the west and the North York Moors and the Wolds on the east. South of York, much of the land is less than 20m above sea level.

Geology

The characteristic limestone scenery of the Yorkshire Dales in Swaledale and Wensleydale is produced by the Carboniferous Limestone, which consists of a sequence of limestone and shales. The rocks become progressively more recent in age down-river from the Dales. Sandstone and shales of the Carboniferous Millstone Grit form an area of grit moorland in the catchments of the Burn and Laver, tributaries of the River Ure, and in the catchment of some right bank tributaries of the River Swale.

The Permian sequence of Magnesian Limestone and Marl units, form a north-south ridge of higher land on the western side of the Vale of York, followed for much of its length by the A1. These rocks dip gently eastward and are overlain by the Sherwood Sandstone which forms the Vale of York. This is in turn overlain on the eastern side of the Vale of York by the Mercia Mudstone and the Jurassic Lias which is a sequence of marls and mudstones. The Jurassic Sandstone and Limestones, which form the North York Moors, provide a westward facing escarpment along much of the eastern side of the Vale of York and also form the eastern boundary of the area.

Soil Types

Soil is the uppermost layer of the earth's surface and is made as a result of the interaction of several

components such as climate, fauna, flora, man and time. It is generally the layer in which plants grow and its presence is therefore of vital importance to agriculture, especially in terms of nutrient content and drainage characteristics. Soils may be thin or absent on upland areas but, as expected, are often thick and well developed in lowland areas or in valley bottoms. As with topography, the soil type is often a reflection of the underlying solid geology.

The rivers Ure and Swale rise in the uplands of the Pennines which are dominated by peat soils characteristic of moorland. The upper valleys are typified by surface-water gley soils (non-alluvial, seasonally waterlogged, slowly permeable soils). The river valleys quickly become dominated by brown soils, with brownish or reddish subsoils suitable for agriculture. The land to the east of the River Swale below Catterick and Ripon is principally stagnogley soils typical of lowland conditions. A band of groundwater gley soils (seasonally waterlogged soils affected by shallow fluctuating groundwater table) extends south easterly from Thirsk, around York, to Selby.

Waste

The waste disposal needs of the area are currently served by five strategic landfill sites which collectively receive most of the household, commercial and industrial waste production. These sites are supported by 22 smaller landfill sites distributed throughout the area which accept mainly inert waste materials from the construction industry. About half of these sites are licensed to take small amounts of household-type wastes.

The pattern of production of household, commercial and industrial waste follows the population distribution which in turn parallels the commercial and industrial base. Per capita production of waste roughly corresponds to the national average; however, per capita arisings of industrial waste are significantly lower, as would be expected from the largely rural Swale, Ure and Ouse area. Most industrial waste is generated in the south of the area. In the main, this waste is similar in nature to household waste along with waste from construction and demolition industries. However, there are specialised waste streams produced by some industries in the area and six organisations operate dedicated internal facilities for the treatment or disposal of these. Only small occasional quantities of

special and/or difficult waste arise and these can be disposed of at any one of the five strategic sites within the area.

The area has four household waste reception centres for public use with subsequent delivery of the waste to landfill sites. In addition a large number of facilities exist for the reception of materials recovered by the public from household waste.

2.4 WATER

The Rivers Swale, Ure and Ouse

The River Swale originates as a series of small becks on the Northern Pennines within the Yorkshire Dales National Park. At Grinton it is joined by Arkle Beck and flows eastward along Swaledale passing through Richmond and Catterick. The river then turns south-east and flows parallel to the A1 to its confluence with the River Ure approximately 2 miles east of Boroughbridge. The River Swale is joined by many tributaries between Catterick and the River Ure: the major being Bedale Beck, which joins at RAF Leeming; the River Wiske, which joins 2 miles upstream of Skipton on Swale; and Cod Beck, which flows through Thirsk to join just below Topcliffe. Water quality in the main river and tributaries is generally good supporting high quality fisheries in addition to potable and agricultural water supply abstractions. The main exception is the River Wiske where point and diffuse source pollution from rural land use and discharges from Northallerton and Romanby sewage treatment works cause downgrading of water quality.

The River Ure also rises in the Pennines within the National Park and is formed by the combination of several small becks in and around the town of Hawes. It is joined by a major tributary, the River Bain, at Bainbridge, by Bishopdale Beck at Aysgarth and by the River Cover east of Middleham. Unlike other dales of the area, the dale through which the Ure flows is named after a local village rather than the river, hence the somewhat anomalous fact that the River Ure flows through Wensleydale. Water quality in the River Ure and its tributaries is mainly of good quality supporting similar uses to that of the River Swale. However, there are signs of eutrophication in the

Hawes to Aysgarth reaches.

Further along its course, the River Ure is joined by the River Burn just south of Masham, the River Skell to the east of Ripon and the Tutt at Boroughbridge. After its confluence with the River Swale, the River Ure flows south-east and, just to the west of Linton-on-Ouse, becomes known as the River Ouse where Ousegill Beck flows in. From this point, the River Ouse flows south through the City of York to Naburn Weir, below which the river is tidal. Water quality is good upstream of York but deteriorates downstream due to the impact of urban drainage, combined sewer overflows (CSOs), the River Foss and the Naburn sewage treatment works. Below Naburn, the tidal river quality is fair or poor because of the impact of upstream discharges plus sewage and trade effluent from Selby, together with the effects of the rivers Aire and the Don.

Tributaries of the River Ouse include the rivers Kyle and Foss, together with the rivers Nidd and Wharfe, Derwent and Aire which are the subject of separate LEAPs.

Being such a large and topographically varied area, the annual rainfall shows a wide range from 600mm at Selby to 2000mm at the far north of the Ure Catchment. With the head of the catchment having so much rain, effective rainfall exists all year long while the Vale of York has no effective rainfall during an average summer.

The Agency has a network of 27 river gauging stations which provide information on river flows and/or levels throughout the area. There are also a number of water level only monitoring stations. The data from these stations are used to produce flow statistics both on a long term and annual timescale.

Twenty-three of the stations are incorporated into the Regional Telemetry System (RTS) and are used to gather and collate up-to-the-minute information during periods of high flow. This information is used by the Regional Flow Forecasting System (RFFS) during flood events to assist in the forecasting of river levels and river flows. Based on forecasts produced and observed levels, warnings are issued to areas at risk from flooding.

Hydrogeology

The hydrogeology of the area is directly influenced by

the local geology and the different rock types which may either hold or transmit water or may act as a barrier to groundwater flow. Water bearing rocks are described as aquifers and are important for several reasons including acting as a source of good quality water for water supply and providing baseflow to rivers.

The Sherwood Sandstone and Magnesian Limestone are the most important aquifers in terms of water supply and are classified as major aquifers. Fissuring of the Magnesian Limestone, which is often associated with faulting, together with karstic conditions may provide large borehole yields but also make the aquifer particularly vulnerable to contamination.

The Millstone Grits are also classified as a major aquifer because of the large number of public water supply sources within them. Their hydrogeology is extremely complex because of extensive faulting and fissuring of the sequence.

Within the Carboniferous rocks of the Yorkshire Dales, the limestones are classified as minor aquifers. These often outcrop on hillsides where they give rise to springs. In the dales, these springs are often important as sources of public and private water supply but are vulnerable to contamination, particularly after heavy rain. Sinks, where water disappears to flow underground, are also common in the limestones and have a significant influence on the hydrogeology and drainage patterns of the local environment. Fissure flow is the dominant form of groundwater movement within the aquifer and makes it very vulnerable to pollution.

The drifts deposits, mostly glacial in origin, are also classified as minor aquifers. Where drift is present, and especially in areas where it is very thick, it exhibits a variety of different types including boulder clay, lacustrine clay, sands, gravels and silts. This results in complex patterns of groundwater movement through and within the drift, and also causes a delay and a reduction in the amount of recharge to the underlying aquifers.

Finally, some rocks, such as shales, mudstone, marls and clays are generally considered to be impermeable and are classified as non-aquifers. Within the plan area, the most important non-aquifers are the Mercia Mudstone and the Permian Marls within the Magnesian Limestone. Although

they are unable to support large-scale abstractions, non-aquifers are very important in terms of providing protection from contamination to the underlying aquifer.

2.5 WILDLIFE AND HERITAGE

The wildlife and heritage features of the area of principal interest to the Agency are those associated with the water environment and this provides the focus for this section.

Conservation

The Swale, Ure and Ouse area is extensive in scale and rural in character containing over 50 SSSIs, parts of 2 national parks and 2 Areas of Outstanding Natural Beauty (AONBs).

In terms of landscape conservation, the upper catchments of the rivers Swale and Ure are within the Yorkshire Dales National Park and are relatively well protected from inappropriate development.

One special feature of the landscape is the "karst" scenery of the Carboniferous Limestone, large parts of which are designated as SSSIs for their characteristic landforms and associated flora and fauna. Of particular importance are the areas of limestone pavement, an erosion feature formed of water worn limestone. It is estimated that only about 3% of such features in the North of England remain undamaged by the extraction of stone for decorative purposes. English Nature and the Countryside Commission are empowered, under the Wildlife and Countryside Act 1981, to make Limestone Pavement Orders preventing further damage.

In wildlife terms, the traditional hay meadows of the dales are important and these botanically rich features, managed for many hundreds of years by local farmers, have now been recognised as internationally important under the European Habitats Directive and are classed as Mesotrophic Grassland Type 3 (MG 3) under the National Vegetation Classification. Most are protected as SSSIs and their maintenance is encouraged by Environmentally Sensitive Area (ESA) status.

The importance of large parts of the Pennine uplands for birds such as golden plover and merlin (amongst others) is only now being recognised.

Large sites within the LEAP Area are currently being designated as SSSIs as a prelude to Special Protection Area (SPA) designation under the European Wild Birds Directive 1979. These sites will form part of the European Natura 2000 network of sites, the process of designation (by English Nature) being due for completion by 2004. It is not clear at present how much of the LEAP Area is to be designated in the way but much of the upland may be included.

Amongst the other SSSIs in the area are Semer Water, one of the few natural lakes in the Pennines, a number of ancient woodlands, including Freeholders Wood in Aysgarth and Hack Fall Wood, and Ripon Parks, a complex of habitats including grassland, scrub and riverine shingle banks. A large area of the head waters of the River Swale is within the Mallerstang - Swaledale Head SSSI, by far the largest site so designated in the area.

Fisheries

The Swale, Ure and Ouse area has a generally healthy fishery which provides a popular source of recreation.

The fish populations of the upper River Swale consist mainly of native brown trout in the main river and most of the tributaries. The majority of the grayling of the River Swale occur between Richmond and Maunby.

Coarse fish first occur in numbers below Richmond. Relatively large populations of barbel and chub for example, occur in the Brompton-on-Swale area. Dace are present in low numbers and it is reported that this species was more numerous in the past, although evidence for this view is scant. Common bream have been introduced to the rivers in recent years and there are reports of angling capture of this species. Predatory species such as perch and pike are present in low numbers throughout the lower river. Gudgeon and roach are found particularly near its confluence with the River Ure and in the stretch above Topcliffe weir. There are significant populations of coarse fish in some of the major tributaries, such as Cod Beck and Bedale Beck.

Minor species, such as bullhead, stone loach, minnow and 3-spined stickleback, occur in varying

numbers throughout the river, with the former two species being mainly found in the upper river and the latter two in the lower river and slower moving tributaries.

Considerable populations of brown trout are present upstream of West Tanfield in the River Ure and its tributaries. Natural recruitment maintains stocks in most of the tributaries whilst populations in the main river are supplemented by stocking of takeable fish to enhance angling catches, predominantly around Hawes, Bainbridge, West Tanfield and Mickley.

Salmon parr have previously been stocked into the River Ure as part of a rehabilitation project, and recently naturally recruited juveniles have been recorded in a few tributaries and in the main river downstream of Aysgarth, where the falls act as an upstream barrier to migratory salmonoids.

Grayling are found in the River Ure between Hawes and Ripon but occur most abundantly in the Redmire and Middleham areas.

Coarse fish are more numerous downstream of West Tanfield although significant numbers occur around Middleham, with Redmire Force being the upstream limit of their distribution.

Chub are prolific throughout the coarse fish zone, with barbel and dace being relatively common. Bream, roach and perch are common below Ripon. Eels are plentiful below Mickley. Small species of little angling interest, such as bullhead, minnow and stone loach, are found throughout most of the Ure area.

The River Ouse supports an abundance of coarse fish with 18 species recorded. It also acts as the major corridor for salmon entering the catchment and, more recently, has seen the return of sea lampreys after an absence of over 50 years.

Heritage

The Swale, Ure and Ouse area has a rich and varied history with tens of Scheduled Ancient Monuments (SAMs) within the area and hundreds of unscheduled ones.

Sites include prehistoric henges on the River Ure, Roman towns and forts throughout the area and medieval castles and abbeys including Jervaulx

Abbey and the World Heritage Site at Fountains Abbey. York possesses a wide range of archaeological remains, some of which are of outstanding importance. There are several large estates and parklands throughout the area.

Biodiversity

Biodiversity is simply a new term meaning 'variety of life'.

The Biodiversity Convention signed by the UK Government at the Earth Summit in Rio (1992) seeks to ensure that the full range of animal and plant species are conserved. A national action plan for biodiversity was published in January 1994. Work since then has identified 116 key species and 14 key habitats, many of them aquatic or wetland related and thus of particular interest to the Agency.

The Agency has a duty to further the aim of biodiversity conservation. The following species, to be found in UK Biodiversity Action Plan, are of particular significance in the Swale, Ure and Ouse area:

- Water Vole (*Arvicola terrestris*)
- Otter (*Lutra lutra*)
- Native Crayfish (*Austropotamobius pallipes*)
- Depressed River Mussel (*Pseudanodotana complanta*)

The River Ure is recognised as being nationally important for native crayfish and it may, at a later date, be designated under national or European conservation legislation.

A number of other aquatic species listed in the action plan, but not a special responsibility of the Agency, are also known to be associated with these rivers or with their wetlands, an example being the great crested newt (*Triturus cristatus*).

Certain of the above named species are totally protected under the Wildlife & Countryside Act 1981 and those currently unprotected are likely to receive such protection in the future.

3.0 THE CONSULTATION PROCESS: A REVIEW

During the production of the Swale, Ure and Ouse Local Environment Agency Plan (LEAP) the Environment Agency undertook extensive consultation with interested parties and the general public.

Review of the Consultation Process

Informal Consultation

In March 1997, the Agency wrote to approximately 60 key groups, local authorities, national organisations and other representative bodies asking for comments on an initial list of issues facing the environment. All comments from this informal consultation were considered and, where appropriate, were included in the Consultation Report.

Formal Consultation

The Consultation Report was published in June 1997 and gives a comprehensive account of the Swale, Ure and Ouse area, including the current state of the local environment. It concentrates on the issues in the catchment and sustainable management proposals for their solution.

The Agency launched the Nidd and Wharfe LEAP and Swale, Ure and Ouse LEAP consultation process in June 1997 at the Pavilions in Harrogate. Approximately 150 organisations and individuals were invited and press releases were issued. A total of 95 people came to the launch representing a wide spectrum of interests from within the area and national organisations, including local authorities, government departments, environmental organisations, industry, recreation and sports groups, and angling clubs.

The launch marked the start of a three month consultation period which ended on 30 September 1997. During the consultation period, approximately 500 Consultation Reports were distributed to interested parties.

Formal Consultation Response Record

By 30 September 1997, 27 consultees had responded in writing (this number does not include the fact that some organisations responded more than once). The Swale Ure and Ouse Statement of Consultation briefly reviews the responses received. Some of the main points raised related to the scope of the Consultation Report, water and air quality, waste and fisheries issues.

TABLE 1: RESPONSE RECORD

Consultee Type	Number who responded
Central Government Departments	1
Local Authorities	7
Public Bodies/Utilities/Government Agencies	2
Landowners/Managers	2
Agricultural Interest Groups	1
Environmental/Nature Conservation	4
Amenity/Recreation Groups	2
Educational Establishments/Museums	2
Other Public Groups	2
Others	4
Total	27

4.0 ACTIVITY PLAN

IMPLEMENTATION

Implementation of the plan is based on the twenty key issues set out below. These were discussed in detail in the Consultation Report and have been modified, where appropriate, in the light of the consultation responses. Their resolution is considered necessary in order that the plan can be successful in achieving real environment improvements within the Swale, Ure and Ouse area.

Following the end of the consultation period, the Agency has undertaken extensive negotiations with key groups and individuals. The vision and key objectives have been modified in the light of the consultation responses. All actions should be Specific, Measurable, Agreed, Realistic and Time based (SMART). The plan represents the non-routine investment of the Agency and others in the area.

The consultation process generally supported the issues raised by the Agency. Many of the original proposals for action have been carried through into the activity tables but a number of new actions have been added and new approaches taken. Actions which have resulted from the consultation process are highlighted (+).

TABLES

The issues are presented with a number of actions, a target timetable and the responsible parties identified. Where possible, costs have been outlined for the period covered by the plan. *This does not necessarily reflect the total cost of the schemes and is sometimes a projected estimate which will be more accurately costed at a later date.* This document is produced in good faith, recognising current priorities both within the Agency and other organisations.

KEY

>	Greater than
-	Action in the year indicated (Cost figures given if known)
R	Routine costs which are not identifiable
U	Costs unknown at present

*	Only Agency costs identified - costs to other organisations unknown
+	Activity added as a result of consultation
k	£1,000 (In some case staff time is included)
pa	Per annum

A number of the actions will require feasibility studies and an appraisal of options prior to work commencing. In some cases, depending on the outcome of these studies, further actions may not be required. The timescales for actions may vary depending on the future political situation and changes within the economy. All changes will be highlighted in the Annual Review.

METHODOLOGY

The following tables have been designed for the ease of the reader. The meaning of the key columns follows:

Actions	The course of action that has been decided upon by the Environment Agency (following the consultation period). These actions work towards addressing some/all aspects of the perceived issues.
Drivers	This is the specific reason why we are undertaking the aforementioned action.
Targets	This is how the success of the action is measured.
Benefits	Both environmental and organisational - this will be the result of the Agency and partners meeting each stated target.

LIST OF ISSUES

1. Education on the importance of environmental protection and enhancement.
2. Impact of future development on the environment.
3. Working with others for the benefit and appropriate enjoyment of the environment.
4. Pollution from rural land uses and farming.

5. The impact of mining on the environment.
6. Operational standards, waste minimisation and best practice.
7. Loss of biodiversity.
8. Identification, minimisation and mitigation of man's impact (other than pollution) on aquatic flora and fauna.
9. Effluent discharges to the rivers Swale, Ure and Ouse.
10. Intermittent threats to water quality.
11. Justification and observance of the conditions of radioactive substances licences.
12. Air pollution and acidification.
13. Risk of flooding to people and property.
14. Water resources management and the impact of the drought.
15. Protection of the groundwater resource.
16. Pollution from waste going to (or applied to) land.
17. Fly-tipping and nuisance pollution.
18. Maintenance of habitat diversity and protection of those habitats recognised for their importance for particular species.
19. The impact of the European Directive on IPPC with regard to the Agency's regulatory role.

ISSUE 1 - Education on the importance of environmental protection and enhancement.

One of the most important ways in which the Agency can have an effect is by raising awareness of environmental issues and new legislation, thereby changing attitudes. This can best be achieved by working with operators and customers to educate them as to how the changes affect them, how to minimise the financial burden and maximise the benefits of such changes.

Promote an understanding of environmental protection and the need to comply with regulations to protect the environment.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Expand existing initiatives to increase awareness of the need to comply with Duty of Care and carrier registration regulations throughout the Swale, Ure and Ouse area by undertaking further producer visits and audits of industry, through liaison with waste carriers and waste disposal site operators and by identifying the nature of non-compliance with existing legislation, for example poor description of wastes for disposal on Controlled Waste Transfer Notes (CWTN).	Unsatisfactory compliance with, and understanding of, Duty of Care.	Undertake a programme of visits and/or, if appropriate, carry out a series of seminars to advise on the Duty of Care.	Compliance with the Duty of Care Regulations.	1998-2002	Agency	Waste Carriers	3pa
Work in partnership with others to produce an education pack based on issues local to the area.	The need to increase awareness of the environment at a local level.	Education pack which promotes environmental issues.	Greater environmental awareness.	1999-2000	Agency	Local Industries Local Schools Environmental Organisations	3

ISSUE 2 - Impact of future development on the environment.

The Agency is taking a pro-active role in the land use planning process. This involves advising local planning authorities and developers on matters concerning air quality, the water environment and waste management. Development has a major influence on shaping an area. New development must be considered carefully to recognise both the potential adverse effects, as well as the potential benefits.

Seek to ensure the Agency's interests are taken into account through the planning process.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Assess the effectiveness of planning comments made by the Agency through monitoring planning application decision notices.	Influence in planning process is below desired level.	25% decision notices monitored on a 3 monthly basis.	Baseline data to enable improvement in planning comments.	1998-2002	Agency	LAs	2pa
Monitor the effectiveness of comments and recommendations made by the Agency in local authority and Yorkshire Dales National Park development plans.	Influence in planning process is below desired level.	Monitoring programme introduced.	Improved links between Agency and LAs, environmental protection.	1998-2002	Agency	LAs	1pa

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Section 105 surveys of flood vulnerable sites on watercourses will be prioritised and then undertaken based on the prioritised programme.	To enable the Agency to provide advice on development on flood vulnerable sites.	Survey completed and advice given.	Increased awareness of development pressures, closer links with development planning.	1998-2002	Agency	Local people MAFF	160

ISSUE 3 - Working with others for the benefit and appropriate enjoyment of the environment.

A number of initiatives have been started by the Agency and others that aim to improve the local environment and its enjoyment by the public. The Agency sees strengthening existing working relationships and forging new ones, through interaction with the public, as the way forward. Many proposals under other issues also require collaborative working.

Work with organisations in order to improve the local environment and its appropriate enjoyment by the public.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Ensure effective liaison with the Agency Rural Land Use Group and bodies such as MAFF to promote schemes of benefit to the environment, for example the Countryside Stewardship Scheme.	To influence how and where the schemes are targeted.	Schemes targeted. All individual applications commented on.	Schemes maximising Agency objectives in terms of location and content.	1998-2002	FRCA MAFF	Agency FWAG Landowners	U
Work with Yorkshire Dales National Park, North Yorkshire County Council, landowners and FWAG to encourage the most appropriate erosion control techniques and combat tipping problems.	Inappropriate erosion control activity in the plan area.	Promote best practice.	Prevent loss of habitat and maintain biodiversity.	1998-2002	Agency	YDNPA FWAG Landowners	U
Encourage improvement of facilities, and foster a balanced approach in the development of access to the countryside by participation in user's forums and consultative groups.	The need to engage the wider community in a balanced approach to countryside recreation.	Balanced approach between users and providers in the recreation arena.	Integrated recreation planning and provision. Improved amenity access to Agency owned land.	1998-2002	Agency	Trans Pennine Trail NYCC	U
Continue to support the Yorkshire Dales Millennium Trust (YDMT) and partners working to enable local people and other interested parties to carry out improvements to wildlife, landscape, buildings and facilities in the area.	Partnership approach to environmental and amenity improvements.	Influence and participate in environmental improvement projects.	Improved links with YDMT and increased participation in partnerships projects.	1998-2000	YDMT	Agency YDNPA English Nature Local Community	U

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Support the Yorkshire Dales National Park application for European funding to promote the Upper Swale Regeneration Project. If successful, play an active role on the Project Management Group and commit Agency resources to the project to provide specialist monitoring and advice.	Agency millennium strategy, in particular Conserving the Land and Enhancing Biodiversity Multi functional integrated project.	European funding secured.	An holistic approach to upper river improvements leading to stabilised bankside; improved fish holding, recruitment and development of self sustaining fish stocks; improved angling and increased biodiversity.	1998-2001	Upper Swale Project Group	YDNPA Ecoscope YWT English Nature Riparian Owners Agency	U
Fully participate in the York Millennium Bridge Project to ensure the best environmental option for the scheme is achieved.	Community driven partnership to achieve amenity and landscape improvements.	Millennium Bridge built, plus completion of improvements to Ouse promenades and Foss Basin.	New routes for pedestrians and cyclists. Environmental improvements for people, wildlife and heritage.	1998-2000	York Millennium Bridge Trust	Local Community Organisations Agency	U
Continue involvement with the Foss Environmental Liaison Group as a means of co-ordinating activities along the river to achieve environmental protection and improvements.	Partnership approach to integrated river management.	Target and influence opportunities for environmental improvements.	Partnership approach and more integrated schemes.	1998-2002	Agency	City of York Council MAFF IDBs Foss Society RKLARUP	U
Promote the Foss walkway strategy to achieve integrated river corridor management.	Amenity and environmental improvement opportunities.	Acceptance and implementation of the strategy.	Improved access, enhanced habitats, attraction of economic and social benefits.	1998-2002	Agency	City of York Council MAFF IDBs Foss Society RKLARUP	U

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (k) (Agency)
Scope and implement beck restoration at St Nicholas Fields and link to the development of the proposed environmental education centre.	Partnership approach to amenity and environmental improvements. Community driven.	Completed scoping study and restoration of the becks.	Community involvement in restored landfill site, improved access, wildlife enhancements and educational benefits.	1998-2002	Friends of St Nicholas Fields	Agency City of York Council RKLARUP	U
Assist applicant groups, with the compilation of present and future funding bids and participate in resulting action plans likely to have environmentally beneficial outcome in the plan area.	Maximisation of resources.	Provide advice on all applications and participate in those that mirror Agency objectives.	Partnerships developed to benefit the environment.	1998-2002	Agency	Other Organisations	U
Actively participate in the local authority Local Agenda 21 (LA21) process and in the production of LA21 Action Plans.	Input into the process to represent Agency interests.	Increased communication & joint projects.	Information sharing, working towards the same goal.	1998-2002	Agency	LAs Local Groups	2pa

ISSUE 4 - Pollution from rural land uses and farming.

Farming and other rural activities are of major economic importance in the plan area but also have the potential to cause pollution, for instance from slurry stores, silage clamps, sheep dips, oil and chemical stores.

Reduce the environmental impact of activities with a potential to pollute.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (k) (Agency)
Continue to utilise chemical and biological sampling and other data to target subcatchments where water quality is being affected by agricultural pollution, including sheep dip, particularly in upland areas.	Deterioration in water quality.	Identify impacted sub catchments.	Improved data correlation.	1998-2000	Agency		U
Continue the programme of farm visits to advise on best practice such as MAFF's Codes of Practice on the protection of air, water and soil, and on waste minimisation. Working in partnership with others, eg FWAG, ADAS were appropriate. Promote schemes for termination of remaining farm effluent discharges, reduction of pesticide usage and landspreading of waste.	Reduce number of farm related pollution incidents and chronic pollution.	Identify problem farms.	Reduced threat to water quality.	Ongoing	Agency		U

Identify and control any misuse of sheep dip likely to impact on water quality and rigorously enforce legislation.	Increased threat to water quality and aquatic fauna from new dip formulations.	Identify and rectify problem dips and influence sheep farmers to use best practice.	Reduce number of sheep dip related pollution incidents.	1998-1999	Agency		U
Ensure that landspreading of waste (including abattoir and food processing waste) does not cause pollution of the environment and is in accordance with best practice and the terms of the relevant exemption.	Encourage best practice.	Programme of supervision in place.	Reduce impact of landspreading on the environment.	1998-2003	Agency		U
Implement new fish farm regulations to prevent escapes of fish.	Ensure compliance with fish farm gratings legislation.	Visit all fish farms to ensure compliance with the legislation.	Protection of native species and maintenance of biodiversity.	1999-2000	Agency	Fish Farm Operators	U

ISSUE 5 - The impact of mining on the environment.

Ensure that mining activities do not increase the risk of flooding to people and property.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Continue to monitor the RJB Mining activities in the Selby coalfield and, where mining subsidence necessitates, raise existing defences at various locations on the River Ouse between Naburn and Selby. Works to be funded by RJB Mining.	To ensure that the flood defences' standard is not compromised by mining subsidence.	Mitigation works carried out in advance of subsidence where practicable.	Current level of service maintained.	1998-2002	Agency	RJB Mining	U

ISSUE 6 - Operational standards, waste minimisation and best practice.

Optimisation of standards and processes can assist in minimising environmental impact. Waste minimisation can reduce costs, limit the amount of waste disposed of and produce benefits for both industry and the environment. Best practice can lead not only to better protection of the environment but also to savings for industry. In the past there has often been a tendency to concentrate on production areas with the result that standards in less high profile areas, such as storage and drainage systems, have fallen behind what is now best practice.

Encourage recycling and waste minimisation, and promote best practice and improve operational standards.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Identify the major companies/organisations currently undertaking recycling initiatives and determine the quality and nature of materials recycled.	To gain an understanding of recycling initiatives.	Companies and nature of materials identified.	Baseline data gathered.	2000-2003	Agency		U

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (k) (Agency)
Assist operators of metal recycling sites to find outlets for the wastes (non-metallic) they produce by providing details of new recycling opportunities and existing recycling and disposal sites.	Raise awareness of reuse and recycling options for all waste produced.	Provide details of waste recycling facilities to all metal recycling site operators.	Increase recycling and reuse.	2000-2003	Agency		U
Work with operators to reduce gaseous emissions from landfill sites by exploring the opportunities for energy production from landfill gas.	To reduce the impact of emissions of landfill gases.	One operator to investigate opportunities for energy production from landfill gas.	Reduction of 'green house' gases and impact on climatic change.	1998-1999	Agency	Landfill Site Operators	2k
All Part A process operators to be contacted and the "3 Es" (Emissions, Economics and Efficiency) process explained. Support in implementation to be offered. Training workshops to be arranged to demonstrate the process, identify potential benefits and illustrate the benefits that have already been accrued by other operators.	Raise awareness and potential for environmental gain through cost savings.	Identify and contact all operators of Part A processes in Swale, Ure and Ouse area.	Resource and energy efficiencies made, industry costs reduced.	Ongoing	Agency	Industry	U

ISSUE 7 - Loss of Biodiversity.

The United Kingdom Government signed up to the Biodiversity Action Plan at the Rio Summit in 1992 in recognition of the global threat to biodiversity. The Agency is the contact point for twelve species and one habitat (chalk streams) and has undertaken to draw up Action Plans for 8 of those species.

Promote the aims of the UK Biodiversity Action Plan.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (k) (Agency)
Determine the status of species present in the Swale, Ure and Ouse for which the Agency has special responsibility as lead partner or contact under the UK Biodiversity Action Plan (UKBAP).	UKBAP.	Report completed.	Up-to-date information to enable management decisions to be taken.	1999-2002	Agency	EN YWT LAs	U
Implement assigned actions within the costed Species Action Plans for the conservation of those species for which the Agency has taken responsibility and are known to occur in the plan area (otters, water vole, native white clawed crayfish and depressed river mussel).	UKBAP.	Actions implemented.	Populations of biodiversity species maintained or improved.	1998-2002	Agency	Landowners YWT EN LAs	U

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Liaise and contribute to the production of Local Biodiversity Action Plans with LAs.	UKBAP.	Contributions made to Local Biodiversity Action Plans and appropriate actions supported.	Improved working relationship and partnership approach to achieving the aims of the UKBAP.	1998-2002	LAs YWT RSPB	Agency EN	U
Assess methods to prevent the spread of American Signal Crayfish in the Ure and implement preferred method.	UK Biodiversity Action Plan - concern over threat to native crayfish populations.	Spread of American Signal crayfish prevented.	Native crayfish populations protected.	1998-2002	Agency	MAFF EN Nottingham University Landowners	U
Identify factors limiting the recovery of salmon stocks and formulate an action plan to aid recovery of stocks.	Restoration of salmon to the Ure and the Ouse.	Action plan to restore sustainable salmon stocks to the rivers Ure and Ouse.	Sustainable salmon stocks and increased biodiversity.	1998-2002	Agency		U
Liaise with FWAG on the production of Farm Biodiversity Action Plans by FWAG linked to species for which the Agency is the lead contact.	UKBAP.	100% riverside farms to adopt action plan.	Species protection.		FWAG	Agency	U

ISSUE 8 - Identification, minimisation and mitigation of man's impact (other than pollution) on aquatic flora and fauna.

There are many adverse effects on the environment which arise other than from pollution, for example, soil and riverbank erosion due to poor land management practices and obstacles to fish movement because of weirs.

Assess and, where possible, mitigate man's impact on the environment.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Prioritise work to be carried out and make proposals to improve the passage of fish at man-made obstructions.	Restore impacted fish populations.	Prioritised list and proposed improvements.	Planned approach. Improved sustainable fishery.	1999-2000	Agency		U
Remove obstructions to spawning movements of fish caused by accumulated materials to ameliorate against low flows, for example, gravel shoals near the mouth of Apedale Beck.	Some obstructions are impeding spawning.	Obstructions removed where appropriate.	Improved access to spawning sites.	1998-2002	Agency		U

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (k) (Agency)
Assess the extent of fish entrainment and damage at Boroughbridge Pumping Station (River Tutt) and recommend further detailed study if potential improvement measures are identified.	Concern over fish mortality caused by pumping station.	Recommendations to alleviate the impact of pumping station.	Prevention/reduction of fish mortalities.	2000-2001	Agency	YWS	U
Investigate the possibility of undertaking works at Beningbrough Hall which would reduce the problem of fish stranding due to flooding.	Fish mortalities.	Investigation completed. Proposals identified.	Fish mortalities prevented.	1999-2000	Agency	Landowner	U
Investigate the amelioration of low flows in the River Foss.	Local community concern over low flows during summer periods.	Examine options for resolving the low flow situation.	Improved understanding of reasons for low flows and of options available.	2000-2001	Agency		U
Support the aims of the Swale, Ure and Ouse Washlands Project Group	Potential impact of mineral extraction work on the landscape and opportunities for wetland creation.	Appoint a Project Officer, establish good links with the rural community and maximise opportunities for wildlife.	Increased biodiversity and recreational opportunities in the plan area.	1999-2002	NYCC	Agency EN	U
Ensure 'in river' mineral abstraction activities follow best practice to minimise the impact on the river environment.	Potential impact on sensitive ecology and habitats.	Conditions imposed to follow Agency recommended methodology.	Sensitive ecology protected.	1998-2002	Agency		U
Collaborate with local authorities and landowners on a programme of giant hogweed control, in particular for the River Ure.	Requirement to control the spread of alien species.	Co-ordinated control programme implemented.	Invasive plants controlled.	1998-2002	Agency LAS Landowners		U

ISSUE 9 - Effluent discharges to the rivers Swale, Ure and Ouse.

Maintenance and improvement of the water quality in, and the environment of, the rivers Swale, Ure and Ouse is of strategic importance to the County of North Yorkshire and beyond. Rivers are the major source of drinking water for York and large volumes of water are abstracted from the Rivers Ure and Ouse for distribution from the grid system to other parts of Yorkshire.

Protect and improve the water quality of the rivers Swale, Ure and Ouse.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Ensure that Yorkshire Water Services Ltd (YWS) completes the provision of improved treatment required under the EC Urban Waste Water Treatment Directive (UWWTD) and Fisheries Directive; and provides extra treatment to achieve River Quality Objectives, funded by the National Environment Programme, at Naburn (York) and Walbutts (York) sewage treatment works (STW), and at Selby as required by the UWWTD alone.	Sewage effluent treatment below desired level.	Sewage effluent treatment improved.	Improved water quality.	2000	Agency	YWS	U
Identify priorities for improvements to unsatisfactory combined sewer overflows (CSOs) to be funded by the YWS capital programme in Asset Management Plans (AMP) 2 and 3, and pursue the implementation of priority schemes.	Water quality (and aesthetics) below desired level.	Improve water quality and aesthetics in vicinity of worst offending CSOs.	Improved water quality, aesthetics and amenity value.	1998-2005	Agency		U
Ensure that STWs identified in AMP3 (of between 2000 and 15000 population equivalents) are improved where necessary to meet the UWWTD and Fisheries Directive and ensure appropriate treatment as specified in the UWWTD is provided for sewage discharges below 2000 population equivalent.	Sewage effluent treatment below desired level.	Sewage effluent treatment improved.	Improved water quality.	2005	Agency	YWS	U
Implement sampling regimes to identify the source of vanadium in the tidal River Ouse as this is currently above the Environmental Quality Standard level and, if appropriate, take measures to reduce vanadium inputs in the river.	Failure of current EQS level.	Identify source of input, if one exists.	Compliance with EQS level in future.	2000	Agency	YWS Industry	U
Determine a realistic water quality target for the tidal River Ouse, prepare a strategy for achievement of the objective and implement it by requiring reductions in Biochemical Oxygen Demand (BOD) load from the Selby group of discharges. The resulting reduction in BOD will increase dissolved oxygen available in the aquatic environment. (YWS taking action, detailed under Issue 9 action 1 above.)	Passage of migratory salmon.	Minimum dissolved oxygen levels to be exceeded at all times in the Selby area of the River Ouse.	Improved water quality allowing restoration of unhindered passage of migratory species.	2000	Agency	Industry YWS	U

ISSUE 10 - Intermittent threats to water quality.

There have been a number of pollution incidents in the area resulting from industrial spills, road tanker crashes and farm slurry spills. Threats from these and many other sources can affect drinking water supplies and are potentially extremely damaging to the environment.

Adopt precautionary measures to prevent pollution incidents and maintain an effective emergency service to mitigate their impact.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Review procedures to deal with pollution incidents and further develop the use of time of travel flow forecasting to assist in safe operation of potable supply intakes on rivers.	Existing time of travel models do not give full catchment coverage.	Extend time of travel models upstream of river intakes.	Improved management of serious pollution incidents.	1999 ongoing	Agency	Contractor	30
Undertake phased investigations on industrial sites and recommend pollution prevention measures.	To gain an understanding of pollution sources.	Companies identified.	Baseline data gathered.	2000-2003	Agency		U

ISSUE 11 - Justification and observance of the conditions of radioactive substances licences.

The use and disposal of radioactive substances within the Swale, Ure and Ouse area requires justification and is controlled by certificates issued by the Agency under Radioactive Substances Act 1993.

Review the use of radioactive materials to ensure that there is sufficient justification and that operators understand and observe the conditions of their licences.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Carry out a review of the authorisations and registrations issued under the Radioactive Substances Act 1993, with particular attention to justification of use and number/activity of sources employed. Check that not only are the requirements of the certificates being observed, but that operators understand the reasons for the requirements.	Concern that the quantities authorised may not be fully justified.	Full review completed.	Greater awareness and understanding of the importance of radioactive substances.	1998-2000	Agency		U

ISSUE 12 - Air pollution and acidification.

Air quality is the responsibility of local authorities. The Agency has a specific remit to regulate releases from Part A processes and will liaise with local authorities to ensure that Agency regulated strategies are complementary to local air quality objectives. Acidification in the form of acid rain arising from air pollution can affect flora and fauna as well as affecting watercourses.

Develop an air quality strategy for part A processes in the Swale, Ure and Ouse area and assess the impact of acidification in the area.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (k) (Agency)
Generate an air quality strategy for Part A processes which complement local authority and national air quality objectives and strategies.	To have a strategic overview of air quality issues.	Strategy produced.	Enable more holistic management decisions.	Ongoing	Agency	LAs Industry	U
Encourage local authorities to develop a database of Part B processes.	Lack of available information.	All local authorities have a database of Part B processes.	Information more widely available.	Ongoing	Agency	LAs	U
Assess the relative impact of Part A processes on the environment.	Relative impact unknown.	Impact assessed and a state of the environment report produced.	Understanding of relative impact and the health of the environment.	1998-2001	Agency		U
Assess the environmental impact of large combustion plants within this and adjoining Local Environment Agency Plan areas and consider what actions may be appropriate to minimise the impact, particularly in adverse weather conditions.	Relative impact unknown.	Impact assessed and a state of the environment report produced.	Understanding of relative impact and the health of the environment.	1998-2001	Agency		U
Determine the impact of acidification on the aquatic ecosystem in tributary streams of the River Swale at Whitsundale, Birkdale, Arkle and Marske Becks and assess whether measures to ameliorate impacts are required and are practicable. (Subject to Upper Swale Regeneration Project, see issue 3.)	Impact of acidification on the river ecology.	Extent of acidification assessed. Practical measures to ameliorate impacts identified.	Restoration of impacted streams.	1999-2002	Agency YDNPA YWT		U

ISSUE 13 - Risk of flooding to people and property.

Historically, development has been centred on the area's rivers which provided a route for communication and a source of water. Where development has taken place in the natural flood plain, properties will be at risk from flooding unless works are undertaken to reduce this risk. It is not practicable, cost effective or environmentally acceptable to protect all vulnerable properties. However, where the Agency's powers and funding permit, it will undertake a priority-based programme to provide effective protection for people and property against flooding. This is achieved by the construction and maintenance of flood defences and through the provision of effective and timely warnings.

Provide and maintain flood defences and a timely, reliable and accurate flood warning service.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (k) (Agency)
Investigate the feasibility of providing improved flood defences at sites identified over the next five years including Naburn, Catterick, Boroughbridge, Ripon, Park Ings and Cawood Ings.	Current level of service may not meet indicative standards of service.	Feasibility study completed.	Improved level of service if schemes are justified and promoted.	1998-2002	Agency	MAFF	100
Undertake a feasibility study of the options available for replacing the ageing defences at Selby. The study will take into account the effects of rising sea levels. Construct new defences based on preferred option.	Current level of service may not meet indicative standards of service. Some of the defences' lives have expired.	Improve defences in places.	Improved level of service.	1998-2002	Agency	MAFF	2,000
Continue a programme of erosion prevention on the tidal River Ouse. Work mainly involves the placing of large stones from a barge and the programme is agreed each year with English Nature.	Protect the flood defences on the tidal Ouse from erosion.	The most vulnerable areas are selected. Programme agreed with MAFF and English Nature.	Protects existing defences on the tidal Ouse.	Ongoing	Agency	MAFF English Nature	50pa
Consider the feasibility of installing a river level recorder and telemetry, linked to the Region's Regional Telemetry System, on the River Ure at Ripon.	Ripon is a red warning area and as stated in the flood warning strategy must have telemetry on site.	River telemetry system installed.	To have real time data during a flood which will indicate the severity of flooding in the town.	1998	Agency	NYCC BT Harrogate BC	3

ISSUE 14 - Water resources management and the impact of the drought.

A lack of rainfall over recent years has resulted in greater demand for water from the rivers Ure and Ouse. This situation is unprecedented in recent times and we will need to review our current knowledge and understanding of the river system both during and after such an event. The Agency will continue to respond to the short term problems with water supplies and will formulate a long term strategy to ensure shortfalls in resources are resolved with minimal environmental impact. The Tees transfer scheme is of particular significance in the plan area and requires a comprehensive assessment of the impact of transferring water between river systems.

Ensure the proper management and development of surface water resources in order to protect both the water resource and the environment.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Ensure YWS and York Waterworks reduce leakage from water supply grids to acceptable levels and promote water conservation measures which will minimise existing abstractions from the rivers Ure and Ouse and closely monitor future possible use of the Tees transfer pipeline.	To aid a reduction in demand and therefore abstraction in the catchments.	Leakage from water companies' distribution systems is reduced to/does not exceed acceptable levels.	More efficient use of water resources. To delay the need to develop new sources of abstraction.	Ongoing	Agency Water Companies		U
Identify the issues and evaluate the environmental impacts of the Tees transfer options proposed by YWS on completion of a comprehensive monitoring programme.	Concern over the impact of the Tees transfer options.	Detailed environmental monitoring programme completed. Options evaluated.	Understanding the environmental impact of the Tees transfer options. Best environmental option implemented.	1998-2002	Agency YWS		U
Complete the joint (YWS and the Agency) monitoring programmes to enable time limited licences and drought-order conditions for abstractions from the River Ouse at Moor Monkton and the River Ure at Kilgram Bridge to be evaluated.	Time limited licence applications and drought orders.	Monitoring programme completed. Time limited licence applications evaluated.	Sound environmental decision.	1998-1999	Agency YWS		U
Validate and monitor the effectiveness of the fish counter and fish pass improvements at Naburn weir and assess fish movements in relation to flow and water quality in the tidal River Ouse.	Need to understand the effectiveness of the design. Time limited licence application.	Fish counter and pass monitored and report produced. Sufficient data for assessment of time limited licence application.	Long term data collected to enable greater understanding. Sound environmental decision to protect and improve the fishery.	1998-2000	Agency		U
Assess the impact of the installation of screens on fish mortality at: (a) Kilgram intakes; and (b) York Water Company water works and Drax.	Determine level of potential fish mortality.	Impact assessed.	Prevention of the loss of fish through provision of appropriate advice.	(a) 1999 (b) 2000	Agency	YWS York Waterworks Drax	U

ISSUE 15 - Protection of the groundwater resource.

Groundwater is a vital source of water both for drinking water supplies and for providing base flow for the area's rivers. Groundwater is particularly at risk from diffuse sources of pollution which accumulate over many years. These waters may be virtually impossible to clean up, even when the source of the problem is removed. The protection of groundwater quality and yield is therefore of paramount concern.

Protect the quality and quantity of the groundwater.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Continue with the Agency's programme of defining groundwater source protection zones for the major groundwater abstractions in the plan area that are used for potable supply, (including the YWS abstractions at Lower Dunsforth, Ainderby Steeple, Angram and Studforth).	Protect specific sources from potential pollution threats.	Definition of Source Protection Zones for major potable sources.	Improved protection of potable sources from contamination/pollution.	1998-2001	Agency		U
Implement the Agency Groundwater Protection Policy through promotion to local authorities, landowners and dischargers within the plan area.	Increase awareness of need to protect groundwater resources.	Production and distribution of Groundwater Protection Maps and presentations to local authorities.	Improved understanding of groundwater resources by local authorities and interested parties.	1998-2001	Agency		U
Establish baseline groundwater quality for the Sherwood Sandstone and Magnesian Limestone aquifers in the plan area by examining the results obtained through sampling from the groundwater quality monitoring network.	Lack of knowledge of the variation in groundwater quality across the aquifers.	Biannual monitoring of network boreholes and evaluate results.	Improved knowledge of regional groundwater quality.	1998-2001	Agency		U

ISSUE 16 - Pollution from waste going to (or applied to) land.

The main method of disposal of waste is to landfill sites. It is vital that the impact of waste disposed of this way is understood and that the environment is fully protected from these potential sources of pollution.

Develop standardised recording systems, collate new and existing data, and improve regulatory practices.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Expand the data available with regard to landfill gas production, surface and groundwater quality at waste sites. Work to influence site operators to install gas utilisation and flaring systems.	Greenhouse gas - methane - emissions from landfill sites.	Installation of appropriate treatment at two sites.	Reduction of greenhouse gas emissions leading to improved air quality.	2000	Agency	Landfill Site Operators	U

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (k) (Agency)
Compile and analyse total waste arisings for the Swale, Ure and Ouse area using information from waste producers, waste carriers, waste collection authorities and disposal facilities. Use information collected locally from the National Waste Arisings Survey to compile and analyse total waste arisings for the area.	Lack of existing knowledge. Information provision.	Total waste arisings compiled and analysed.	To be able to provide information to local planning authorities, developers, consultants and the waste management industry.	Ongoing	Agency	Waste Producers Waste Management Industry LPAs	U
Develop a supervision and monitoring programme to determine whether exempt activities fall within the terms of the exemption and reduce the potential for pollution. Improve liaison with the operators of waste sites where an exemption from waste management licensing has been registered.	To improve the availability of information.	Enhanced supervisory regime leading to the achievement of National targets.	Reduced potential for pollution and greater understanding of the scale of activities.	1998-2003	Agency		2
Improve the effectiveness of supervision of waste sites by using a risk based approach. Explore the opportunities to measure the standards of waste site operations.	Prioritisation of waste sites requiring significant operational improvements. Effective use of resources.	Identify priority waste sites and instigate improved supervision regime.	Improved effectiveness of supervision of waste sites and standards of site operations.	1998-2003	Agency		5

ISSUE 17 - Fly-tipping and nuisance pollution.

The impact of the recent landfill tax may result in an increase in illegal tipping of waste. Nuisance pollution (dust, litter, odour and smoke) is often less damaging overall to the environment than other forms of pollution but may cause local offence and concern.

Target fly-tipping and, in co-operation with other organisations, nuisance pollution arising from licensed facilities.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (k) (Agency)
Improve standards of operation at all waste transfer stations, for example by preventing unauthorised burning and ensuring regular clearance of waste from transfer stations.	Unauthorised emissions to air and risk to human health.	All waste transfer stations visited and advised on best practice.	Reduction of emissions to air and human health safeguarded	1998-1999	Agency	LAs	U
Develop strategies and objectives for future regulation of operations and measures for monitoring nuisance relating to waste management activities at waste sites, for example dust, litter, odour, smoke and noise.	Poor monitoring tools currently available.	Strategies developed.	Improved regulatory practice and better environmental protection.	1998-1999	Agency		U

Work to reduce the amount of illegal tipping in the plan area by undertaking an anti fly-tipping campaign in conjunction with local authorities and the Tidy Britain Group.	Reduce the quantities of waste illegally deposited.	Campaign undertaken.	Environmental and communication.	1999-2003	Agency	YDNPA LAS TBG	2
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ISSUE 18 - Maintenance of habitat diversity and protection of those habitats recognised for their importance for particular species.

The diversity of species is an important indicator of the environmental condition of an area. The Swale, Ure and Ouse area is already diverse, and this is recognised in the number of designations imposed on the river and its surroundings. The Agency, where possible, will work to protect and increase the habitat diversity in the area. Fish stocks in particular, are an indicator of environmental well-being as well as providing important recreational opportunities.

Protect and, where appropriate, increase habitats for fisheries, flora and fauna; balance and integrate the requirements of agriculture, flood defence and conservation; and collaborate in R&D projects to gain a more comprehensive understanding of the environment.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Enhance fish spawning areas and nursery areas through appropriate management, for example willow planting, installation of instream structures and cleaning of gravels, and assess effectiveness by pre and post installation surveys.	Limited spawning and nursery areas for coarse fish.	Increased number of spawning and nursery areas.	Increase in fish populations and general biodiversity.	1999-2002	Agency	Landowners	U
Fence off, plant trees on the bank and/or install instream fish shelters in the River Swale on five reaches of 5 km length upstream of Morton-on-Swale at Middleham on the River Ure.	Limited or poor habitat.	Habitat improvements in targeted areas.	Increase in fish populations and general biodiversity.	1999-2002	Agency	Landowners	U
Provide shelter areas in the Aldborough area of the Ure which will concentrate fish and improve angling catches, working in collaboration with British Waterways.	Poor angling catches on the Ure.	Shelters completed. Angling catches improved.	Increased amenity value.	Ongoing	Agency BW	Angling Clubs	U
Identify areas of the River Kyle suitable for habitat improvement and discuss suitable measures with the Kyle and Upper Ouse IDB, landowners and FWAG.	Perceived poor habitat.	Areas identified using phase 1 habitat survey data.	Potential habitat improvement sites identified.	1998-1999	Agency	IDB Landowners FWAG	U
Produce water level management plans for the River Ure grasslands.	To satisfy MAFF initiatives set in 1994.	Final plan produced.	To maintain or rehabilitate conservation interest.	End 1998	Agency	EN MAFF	U
Promote the Ouse Ings Heritage Project to conserve and enhance the wildlife and heritage value of the Ouse Ings in and around York for future generations.	Duty to promote conservation and promote best practice on Agency owned land.	External funding for project obtained.	Environmental benefits on a high profile site.	1998-1999	Agency	Volunteer Groups YWT	U

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Draw up a management plan for Asselby Island with a view to enhancing flood and woodland habitat, including reintroduction of native black poplar.	Duty to promote conservation and promote best practice on Agency owned land.	Management plan produced.	Improved management of Agency owned land.	1999-2000	Agency	Lease tenants	U

ISSUE 19 - The impact of the European Directive on IPPC with regard to the Agency's regulatory role.

The EU has agreed to the adoption of a system of environmental regulation called Integrated Pollution Prevention Control across all member states. The system will be introduced between October 1999 and 2007. The impact upon industry within the area needs to be defined and the regulatory roles of the Agency require identification.

Identify affected industries and discuss IPPC introduction with them.

Action	Driver	Target	Benefit	Timescale	Lead Partner	Others	Cost (£) (Agency)
Identify affected industry groups and ensure awareness and compliance strategies are in place.	New legislation.	Industries identified.	To be in a position to forward plan.	1998-1999	Agency		U
Assess the role of the Agency within the plan area when IPPC Directive becomes UK legislation.	Agency role is currently unknown.	Agency role assessed.	Understand implication for the catchment area.	1998-1999	Agency		U

5.0 PROTECTION THROUGH PARTNERSHIPS

The Agency is well placed to influence many of the activities affecting the environment through the Environment Act 1995 and other legislation. This section provides the opportunity to address longer-term management issues in partnership with others.

The Agency must work with a number of other organisations to ensure that the actions mentioned in Section 4.0 are implemented in order that the key objectives and the long term vision can be realised. The Agency is working closely with local authorities in particular to ensure that this happens. Dales Area also seeks to increase the number of partnership opportunities with statutory and non-statutory groups to undertake improvement projects and to develop a wider public awareness of environmental issues.

A full list of organisations involved in the pre-consultation stage of this document can be found in the Statement of Public Consultation.

Further partnerships proposals are welcomed.

EDUCATION

Awareness of educational issues is of paramount importance for successful environment management. The Environment Agency will seek to educate and influence individuals, groups and industries to promote environmental practice. The Agency will work in partnership with statutory and voluntary groups to undertake improvement projects and develop a wider public awareness of environmental issues.

The Agency will actively work within educational establishments and with groups that work with young people. It will be encouraging young people to be aware of their actions and the effects they have on the environment.

KEY PARTNERSHIPS

This section covers the role of the local authorities in relation to land use planning, air quality, waste management and flood defence. It also recognises some of the key groups and organisations which play an important role in protecting the local environment.

Development Planning

Land use is one of the single most important influences on the environment. It follows, therefore, that land use change has important implications for the environment which can be both positive and negative. Land use planning is administered by the county, district and unitary planning authorities and the National Park Authorities. Control of land use change is achieved through implementation of the Town and Country Planning Acts and a range of Government planning guidance. This guidance highlights the importance of communication between local planning authorities and the Agency and also the relationship between land use and the environment.

The Agency is committed to developing close working relationships with the local planning authorities to promote effective links between planning and environmental protection.

Development Plans

Regional Planning Guidance for Yorkshire & Humberside (RPG12) was issued by the former DoE in March 1996 after consultation with, amongst others, the local planning authorities and one of the Agency's predecessors, the NRA. The RPG sets out the broad planning objectives for the area.

County council structure plans, district council local plans and unitary authority development plans must be produced by planning authorities. These plans set out the development objectives and are prepared in accordance with the RPG. They provide a framework for land use change and are a key consideration in the determination of planning applications. The Agency is a statutory consultee for all these plans which allows the Agency's views to be considered by the councils when formulating development plan policies and allocating land for development.

Development plans guide future development. Through the consultation process, the Agency encourages local planning authorities to adopt policies which protect the environment from any of the potentially harmful effects of development.

The NRA produced a set of statements in its documents, 'Guidance Notes for the Local Planning Authorities on the Methods of Protecting the Water

Environment through Development Plans'. These statements provide a general guide for local planning authorities regarding the policies which should be included in the various plans and why they are important. This guidance is currently being updated by the Agency.

Development Control

The Agency is also a statutory consultee for certain categories of planning application and councils have discretionary powers regarding the referral of other matters— This allows the Agency's views to be considered by the council prior to planning applications being determined.

It is primarily land use change in the long term and the opportunities presented by re-development that will help to tackle the issues of urban run-off, contaminated land and the rejuvenation of river corridors.

National Park Authority Management Plans

National park authorities have a duty to prepare and publish a management plan which formulates its policy for the management of the park.

Local Agenda 21

Local Agenda 21 was one of four main agreements signed at the Rio Earth Summit by representatives of 150 countries, including the UK Government. It is intended to be:

'A comprehensive programme of action needed throughout the world to achieve a sustainable pattern of development for the next century.'

Local Agenda 21 includes initiatives to further the concept of sustainability and includes waste management issues and the promotion of environmental awareness. In 1994, the Government produced a national sustainable development strategy and action plan for the UK. Most local authorities are working with local communities to produce their own Local Agenda 21 programmes in order to promote sustainable development and to improve quality of life. Local Agenda 21 which is a 'grassroots' mechanism looks to local people to find positive ways of living in a more sustainable manner in their area. The Agency will work with local authorities to protect and improve the local environment and support Local Agenda 21

initiatives. LEAPs provide proposals for action which can be fed directly into Local Agenda 21 Action Plans.

Air Quality

Local authorities' Environmental Health departments regulate air pollution from thousands of industrial processes under Part 1 of the Environmental Protection Act 1990. Generally these are processes with less potential to pollute than those regulated by the Agency. The processes concerned are known as Part B processes. Local authorities will be required to review present and future air quality against air quality standards and objectives as prescribed in Government regulations. Reviews are in the form of Local Air Quality Plans for which the Agency will be a consultee. The Agency will look to produce an air quality strategy for Part A processes in the Swale, Ure and Ouse area which will input into Local Air Quality Plans.

Waste Management

Local authorities are the key players within the waste management system and, as the planning authority, determine the location of waste management facilities in accordance with policies contained in the waste local plan, county structure plan and local development plan. Local authorities are instrumental in determining regional waste management requirements. It is essential that the Agency continues to work closely with planning authorities in order to further the concept of sustainable waste management.

FLOOD DEFENCE

The Agency has specific powers relating to main rivers which enable them to undertake maintenance, improvement works, construct flood defences and control work by others. The Agency has a general supervisory duty over all flood defence matters which requires working in close partnership with other drainage authorities.

LOCAL COMMUNITY

The local community has its own aspiration for its environment. In order to protect the environment, the Agency needs the support of the community to tackle issues such as pollution, fly tipping, environmental protection and enhancement.

The Agency is particularly keen to work with local communities, involving them in activities to assist the Agency to protect the local environment.

6.0 FUTURE REVIEW AND MONITORING

The Agency will be jointly responsible, with other identified organisations and individuals, for implementing this Action Plan. Progress will be monitored and reported annually by the Agency to all the key partners and other interested parties. The first Annual Review is due in October 1998. These Annual Reviews will examine the need to update the Action Plan in the light of local change. The life of the Action Plan is five years after which time a major revision will normally be undertaken.

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APPENDIX A: The Environmental Strategy for the Millennium and Beyond

As detailed in the publication, 'An Environmental Strategy for the Millennium and Beyond', the Agency's principal and immediate environmental concerns relate to:

- i. addressing the causes and effects of climate change;
- ii. helping to improve air quality;
- iii. managing our water resources;
- iv. enhancing biodiversity;
- v. managing our freshwater fisheries;
- vi. delivering integrated river-basin management;
- vii. conserving the land
- viii. managing waste; and
- ix. regulating major industries effectively.

Specific actions have been drawn up for each of the above nine themes and an example for each is given below:

Addressing the causes and effects of climate change	Develop methods to improve our estimates of the emission of methane into the atmosphere from landfill sites.
Improving air quality	Ensure emissions from the major industrial processes to the atmosphere are reduced.
Managing our water resources	Encourage a more efficient use of water by the public and a change in public attitude to water usage.
Enhancing biodiversity	Play a full and active part in delivering the UK's Biodiversity Action Plan by acting as the 'contact point' for the chalk rivers plan and for the 12 species of aquatic animals and plants, including the otter, the water vole and rare species of fish, and by acting as the 'lead partner', either singly or in collaboration with others, for 10 of them.
Managing our freshwater fisheries	Monitor every river fisheries over a five year rolling cycle.
Delivering integrated river-basin management	Ensure that all waters are of sustainable quality for their different uses.
Conserving the land	Influence the Town and Country Planning Systems to prevent developments in the wrong places.
Managing waste	Develop an overall database of waste arisings and disposals.
Regulating major industries	Develop pollution prevention control tools, including projects relating regulation to emission, efficiency and economic benefits (3Es project).

APPENDIX B: Glossary

Abstraction. Removal of water from surface water or groundwater, usually by pumping.

Abstraction Licence. Licence issued by the Environment Agency under Section 38 of the Water Resources Act 1991 to permit water to be abstracted.

'Action'. The course of action that has been decided upon by the Environment Agency (following the consultation period). These actions work towards addressing some/all aspects of the perceived issues.

Area of Outstanding Natural Beauty. Areas of Outstanding Natural Beauty are designated under the National Parks and Access to the Countryside Act 1949 by the Countryside Commission. Their primary purpose is to conserve the natural beauty of selected landscapes.

'Benefit'. Both environmental and organisational - this will be the result of the Agency and partners meeting each stated target.

Biochemical Oxygen Demand. A measure of the amount of oxygen in water which is required to breakdown organic matter.

Carboniferous. Period in geological time, 345-280 million years ago.

Catchment. The total area of land which contributes surface water to a specified watercourse or water body.

Controlled Waters. Defined by the Water Resources Act 1991; Part III, Section 104. They included groundwaters, inland waters and estuaries.

Diffuse Pollution. Pollution from widespread activities with no discrete source.

Discharge Consent. A statutory document issued by the Agency, under Schedule 10 of the Water Resources Act 1991, to indicate any limits and conditions on the discharge of an effluent to a controlled water.

Disposal Authority. Disposal authorities were established by the Local Government Act 1972 (for England & Wales). They consist of the county councils in shire counties, and borough/district

councils following abolition of the metropolitan councils and the Greater London Council, except where the Secretary of State establishes a statutory authority.

Dissolved Oxygen. The amount of oxygen dissolved in water. Oxygen is vital for life so this measurement is an important, but highly variable, indicator of the 'health' of a water body. It is used to classify waters.

'Driver'. This is the specific reason why we are undertaking an aforementioned action.

Floodplain. This includes all land adjacent to a watercourse over which water flows or would flow, but for flood defences, in time of flood.

Fly Tipping. The unregulated and hence illegal dumping of waste.

Greenhouse Gas. Gases affecting the ozone layer are commonly referred to as greenhouse gases - carbon dioxide, carbon monoxide and methane.

Groundwater. Water which is contained in saturated underground strata.

Gripping. Moorland drainage channels.

House Equivalent. A measure used for assessing the value of property and land protected against flooding.

Karst. Denoting the characteristic scenery of a limestone region, including underground streams and gorges.

Landfill. The deposition of waste onto and into land in such a way that pollution or harm to the environment is prevented and, through restoration, to provide land which may be used for another purpose.

Landfill Gas. A by-product from the digestion by anaerobic bacteria of putrescible matter present in waste deposited on landfill sites. The gas is predominantly methane (65%), together with carbon dioxide (35%) and trace concentrations of a range of other vapours and gases.

Leachate. Liquid which seeps through a landfill,

and by doing so extracts substances from deposited mineral waste.

Local Agenda 21. Agenda 21 is part of a programme of action agreed at the 1992 Rio Earth summit by world leaders, intended to bring about sustainable development. Local Agenda 21 is the part of the action programme which requires local action: it looks to local government to provide the lead.

Main River. Some, but not all, watercourses are designated as 'main river'. Main river status of a watercourse must first be approved by MAFF. Statutory (legally binding) maps showing the exact length of the main rivers are held by both MAFF in London and the Agency in Regional Offices. The Agency has the power to undertake works to improve drainage or to protect land and property against flooding on watercourses designated as main river. The Agency does not have legal power to spend public funds on drainage or flood protection works on watercourses not designated as main river.

Marls. Calcareous mudstone (calcium rich).

Natural Nature Reserve. An area of land designated by English Nature under Section 35 of the Wildlife and Countryside Act 1981. These are managed by, or on behalf of, English Nature specifically for wildlife conservation purposes.

Natural recruitment. Fish that are bred naturally in the river.

Part A Processes. Significant industrial processes authorised by the Environment Agency.

Part B Processes. Processes authorised by local authorities which are seen as having a lesser potential to damage.

Permian. Periods in geological time 280-225 million years ago.

Prehistoric henges. Late Neolithic/Early Bronze Age large circular earthworks, often with two opposing doors, probably used for ceremonial or ritual purposes.

Ramsar Sites. Internationally important wetland sites adopted from the Convention of Wetlands of International Importance especially as water flow habitats (1971) and ratified by the UK government

in 1976.

Red Warning Area. Warning of severe flooding affecting many properties, roads, farmland near rivers or the sea.

Riparian Owner. A person/organisation with property rights on a river bank.

River Corridor. Land which has visual, physical or ecological links to a watercourse and which is dependent on the quality or level of the water within the channel.

River Quality Objective.—The level of water quality that a river should achieve in order to be suitable for its agreed uses.

Salmon parr. The juvenile stage of the salmon in freshwater before it migrates to the sea.

Scheduled Ancient Monument. An archaeological feature given statutory protection under the Ancient Monuments and Archaeological Areas Act 1979.

Section 105 Survey. The Agency have, under Section 105 of the Water Resources Act 1991, a responsibility to define the nature and extent of flood risks.

Site of Specific Scientific Interest. A site given statutory designation by English Nature or the Countryside Council for Wales because of its particular importance for nature conservation.

Special Protection Areas. Internationally important sites designated under the EC Wild Birds Directives.

Statutory Water Quality Objectives. Water quality objectives set by the Secretary of State for the Environment, in relation to controlled waters.

Strata. Layers of rock, including unconsolidated materials such as sands and gravel.

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

Takeable fish. Fish which are at or above the legal limit to be taken.

'Target'. This is how the success of an action is measured.

Time of travel. Measure of the time at a given flow rate that a body of water takes to flow a given distance. Time of travel can be used to estimate the arrival of a polluting input at a point of concern.

Volatile Organic Compounds. Gases including hydrocarbons, halogenated organics and benzene.

APPENDIX C: Abbreviations

		MAFF	Ministry of Agriculture, Fisheries and Food
AMP	Asset Management Plan (water companies)	MMF	Minimum Maintained Flow
AONB	Area of Outstanding Natural Beauty	NERC	Natural Environment Research Centre
BC	Borough Council	NWL	Northumbrian Water Limited
BOD	Biochemical Oxygen Demand	NYCC	North Yorkshire County Council
BT	British Telecommunications	OFWAT	Office of Water Trading
BW	British Waterways	RPG	Regional Planning Guidance
CDRom	Computer Disc Read only memory	RQO	River Quality Objective
CSOs	Combined sewer overflows	RRP	River Restoration Project
CWTN	Controlled Waste Transfer Note	RSPB	Royal Society for the Protection of Birds
DoE	Department of the Environment	SPA	Special Protection Areas
EN	English Nature	SSSI	Site of Special Scientific Interest
EQS	Environmental quality standard	STW	Sewage Treatment Works
FRCA	Farming and Rural Conservation Agency	SWQOs	Statutory Water Quality Objectives
FWAG	Farming and Wildlife Advisory Group	TBG	Tidy Britain Group
GQA	General Quality Assessment	TCMD	Thousand cubic metres per day
HNDA	High Natural Dispersion Area	UWWTD	Urban Waste Water Treatment Directive
IDB	Internal Drainage Board	VOC	Volatile Organic Compound
IPC	Integrated Pollution Control	WR	Water Resources
IPPC	Integrated Pollution Prevention and Control	YDMT	Yorkshire Dales Millennium Trust
LA(s)	Local Authority	YDNPA	Yorkshire Dales National Park Authority
LA21	Local Agenda 21	YWS	Yorkshire Water Services Plc
LEAP	Local Environment Agency Plan	YWT	Yorkshire Wildlife Trust
LPA(s)	Local Planning Authority		

MANAGEMENT AND CONTACTS:

The Environment Agency delivers a service to its customers, with the emphasis on authority and accountability at the most local level possible. It aims to be cost-effective and efficient and to offer the best service and value for money.

Head Office is responsible for overall policy and relationships with national bodies including Government.

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ENVIRONMENT AGENCY GENERAL ENQUIRY LINE

0645 333 111

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

ENVIRONMENT AGENCY EMERGENCY HOTLINE

0800 80 70 60



**ENVIRONMENT
AGENCY**



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