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EA-ANGLIAN LEAPS

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local environment agency plan

OLD BEDFORD INCORPORATING THE MIDDLE LEVEL AND OUSE WASHES

ACTION PLAN

APRIL 1998

WISBECH ■



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ENVIRONMENT
AGENCY

KEY FACTS AND STATISTICS

PLAN AREA: 921 km²

Length of Statutory Main River 103 km
 Length of Other Watercourse 180 km
 Length of Embanked River 101 km
 Length of Navigable River 55 km (Middle Level Commissioners oversee 150km)
 Length of Cyprinid Fishery 211 km

SITES OF SPECIAL SCIENTIFIC INTEREST: 11

SCHEDULED ANCIENT MONUMENTS: 21

WATER UTILITY COMPANIES: Anglian Water Services Limited, Cambridge Water Limited

INTERNAL DRAINAGE DISTRICTS: 37 within the Middle Level Commissioners catchment area plus Haddenham IDB, Littleport & Downham IDB, Manea & Welney IDD, Middle Fen & Mere IDB, Sutton & Mepal IDB, Upwell & Outwell IDB and Hundred Foot Washes IDB.

COUNTY COUNCILS: Cambridgeshire, Norfolk

DISTRICT COUNCILS: East Cambridgeshire District Council, Fenland District Council, Huntingdonshire District Council, Kings Lynn and West Norfolk Borough Council

MAIN TOWNS AND POPULATIONS: March (18,030), Chatteris (8,140), Ramsey (7,390), Whittlesey (14,600 - 70% of which are in the plan area)

WATER QUALITY:

Biological Quality Grades	1996 length of river (km)	Chemical Quality Grades	1996 length of river (km)
A	129.4	A	0
B	122.8	B	14.3
C	9.5	C	54.6
D	26.4	D	114.4
E	0	E	110.0
F	0	F	0

EXECUTIVE SUMMARY

The Old Bedford LEAP area is mainly within Cambridgeshire, the fastest growing county in Britain, and a small part of Norfolk. The main towns are Ramsey, March and Chatteris. The area comprises the Ouse Washes and the Middle Level river systems. Therefore, concerns about the management of the water environment predominate.

The Ouse Washes (32 km from Earith to Denver) were created in the 17th Century. Their primary purpose is to provide storage of floodwater from the Bedford Ouse catchment - so preventing the surrounding Middle and South Levels from flooding. A secondary benefit is that as one of the few remaining areas of Washland in the country, the Ouse Washes have become one of the most important designated sites in the country for the conservation of migrant bird life.

The Middle Level catchment area, 60% of which is

fenland and below sea level, is administered by the Middle Level Commissioners (MLC). The area is subdivided into 37 Internal Drainage Districts. The economy of this rural area is dependant on agriculture due to the creation of some of the most productive soils for arable farming in the UK by historic draining of the Fens.

WHAT IS LOCAL ENVIRONMENT AGENCY PLANNING?

Our environment - air, land and water, supports a variety of habitats, flora and fauna including ourselves. Man uses the environment in a number of ways; for the supply of drinking water, production of food crops, disposal of waste products and for recreation and enjoyment, etc.

These demands sometimes conflict and we use Local Environment Agency Planning as a tool to manage the environment in an integrated and balanced fashion.

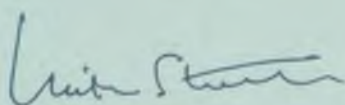
FOREWORD

The Environment Agency was established to protect, monitor and improve the environment in its broadest sense - ultimately contributing to the worldwide goal of sustainable development. We have become one of the most powerful environmental regulators in the world. By exerting our influence on the regulation of air, land and water, we have a unique opportunity to look at our environment in an integrated and holistic manner.

Local Environment Agency Plans (or LEAPs) set out a vision for the quality of the environment in a particular area and how that may be achieved through appropriate management. The plans focus, particularly, on issues which have been raised through our consultation with the local communities affected. Many of these issues and indeed other opportunities for improvement cannot be tackled by the Agency alone and so the plan also acts as a platform for partnership with other interested parties.

Whilst the vision, by its very nature, is not constrained by the practicalities of budgets and resources, the activity plans set out our firm proposals for the delivery of real improvements to the local environment - as steps towards achieving that vision. Consequently, LEAPs are becoming one of the cornerstones to how the Agency plans its business.

We hope that you will find this document useful and informative. Readers' opinions and suggestions are, as always, welcomed. We look forward to working with you to make this plan a reality.



Keith Stonell
Central Area Manager

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ACKNOWLEDGEMENTS

We would like to thank all those organisations and individuals who have got involved during the preparation of this plan and especially to those who attended the early consultation meeting and responded to the Consultation Report.

We would like to thank all those Agency staff who invested many hours of hard work to create this plan and also the important contribution to the process made by members of the Great Ouse Area Environment Group.



MAP 1: OVERVIEW

-  Roads
-  Main River
-  Plan Boundary
-  Urban Area

WISBECH

NORTH



EXECUTIVE SUMMARY

This Action Plan concentrates on the actions, partnerships and policies developed following a public consultation exercise. It describes the work that the Agency and others will undertake to maintain and enhance the environment over the next five years.

ISSUES FACING THE AREA

The following is a brief description of Section Four of this document. Other longer-term or strategic environmental issues are covered in Section 5 Protection Through Partnership.

MANAGING THE OUSE WASHES

This topic is concerned with the need to continue to manage the Ouse Washes so that its function as a flood storage area is preserved whilst taking every opportunity to enhance the wildlife and habitat. Bird life, fish species such as the spined loach and vegetation are so valued that they have led to national and international designations so that they can be protected.

Improvements to how we control flood water around the Washes, a review of how water levels and irrigation are managed, weed control techniques and arrangements for access to the Washes are some of the activities stated in the plan.

BIODIVERSITY AND NATURE CONSERVATION

As stated above, the Ouse Washes have been designated a Special Protection Area (SPA), Site of Special Scientific Interest (SSSI) and a Ramsar site. They have also been put forward, along with Woodwalton Fen, to the EC for consideration as a Special Area for Conservation (SAC) under the Habitat's Directive. This designation promises to have wide reaching implications on those who live on and manage these sites. We and other organizations are undergoing a process of reviewing any authorizations given in these areas. In due course, site management statements will be drawn up. We would particularly like to investigate the impact of water draining off Woodwalton Fen on water quality.

LAND USE AND DEVELOPMENT PRESSURES

Land use is the most significant impact on the environment. Under this topic we have highlighted the need to review water resources in the Middle Level within the context of sustaining farming in the longer-term. We also intend to investigate measures to reduce the pollution risk of a major tyre dump found in the LEAP area.

IMPACT OF SEWAGE TREATMENT WORKS ON WATER QUALITY

It is paramount that sewage is treated and disposed of effectively. A key indicator of this is whether the rivers

meet the water quality objectives we have set for them. Like many areas, the 'Old Bedford' and Middle Level have problem areas which this LEAP seeks to address. These include March where work is in hand by Anglian Water to improve sewer overflows. Improvement work is also planned at Somersham and Whittlesey sewage treatment works (STW) which will benefit local watercourses. Rural areas have particular problems and now previously unsewered villages are under consideration for sewerage work.

ENJOYMENT OF THE WATERWAYS

It is believed that there is scope for the 'Old Bedford' area and Middle Level to be opened up for more recreation whereby long established pastimes such as angling and boating could be enhanced by improved footpaths and access points. Various local authorities, county councils, users groups, Middle Level Commissioners and ourselves have come together in project groups to devise strategies to explore this theme. There is also a need to review the Old Bedford statutory navigation and its management as the river has been difficult to enjoy due to low water levels, siltation and weed growth.

NEED FOR MONITORING AND INVESTIGATION

When a LEAP is prepared, we are tasked with assessing the state of the environment. To do this we use certain indicators of health of the environment, eg, how much nitrogen dioxide in the air, how many species of fish in a river. In some instances we do not know enough about the environment to assess its state. Under this topic, we have highlighted the need to coordinate the collection of more information on the degree of biodiversity in the 'Old Bedford' LEAP area, more information on the amount of water flowing from the Tidal River through 'slackers' to the Middle Level system and we have also identified the need for further water quality monitoring.



Fish Restocking on the Old Bedford at Welney

In preparing this Vision, the Environment Agency has defined how it would wish the local environment to be. Through consultation, we must ensure that this Vision also includes the aspirations of all the key partners through the production of this plan. It should be remembered that the Vision may take more than five years to achieve, but can still influence our work in the near future.

Society wants to achieve economic development to secure a better quality of life, now and in the future. It also seeks to protect the environment. The concept of sustainable development tries to reconcile these two objectives - meeting the needs of the present without compromising the ability of future generations to meet their own needs. The Agency's remit is to contribute to making this concept a reality. As a statutory consultee in the Town and Country Planning process, we will encourage planned developments and infrastructure to be sustainable.

The 'Old Bedford' area, found in Cambridgeshire and part of Norfolk, is a highly rural locality where agricultural land use predominates. Its unique fenland landscape reflects how man has altered the waterways to produce a highly managed system. However, this is not a static ecosystem but an area which is evolving as a result of different uses and pressures imposed upon it. For example, the Ouse Washes, primarily constructed to offer flood relief more than 300 years ago, also exists today as one of Europe's most decorated havens for waterfowl.

The Agency's vision for the 'Old Bedford' encapsulates the above discussion:

- We do not have control over regulating the whole environment and therefore the future of environmental protection must involve working closely with others especially local authorities. The Agency and others will have to be adaptable to respond to events such as drought, flooding or pollution. All parties with a stake in the area must be flexible, eg, conservationists, industrialists, navigators, anglers and farmers. The entire community of users of this environment need to take a broad view of everyone's needs and not just from their own stance;
- Our efforts need to focus on maintaining all the existing values and uses of the local environment in the future. This will be a challenging task. The

environment will continue to evolve perhaps through climate change or through altering farming practice (in response to changes in the market economy). Under these circumstances, we should ask, for how long will current practices be sustainable? We already make difficult choices and the significance of such decisions looks set to increase in the future. For example, there is a need to balance the overall demand for water resources from all sectors of the community with the needs of the environment - by continually reviewing how we use water and changing undesirable practices accordingly;

- We will continue to seek improvements to water quality through negotiations with Anglia Water Services and by giving advice to land managers to encourage the best environmental practices. We would expect localised improvements downstream of Somersham and Whittlesey as a result of improvements to sewage treatment works. We will also be aiming for compliance with long-term objectives; and
- We will work with others to capitalise on opportunities to maintain and enhance the biodiversity of the area through habitat enhancement projects, wherever possible (eg, through the Wet Fens for the Future Project) and maximise opportunities to enjoy the area's waterways;

The Agency will continue to strive towards a truly integrated approach to environmental management. One example of this is the regulation of waste; the ongoing promotion of minimisation and recycling whilst we continue to assess the environmental practicability of disposal options such as landfill or incineration.

Through our consultation exercise, we feel that this Vision can be shared by the local community. As said above, the Agency will work increasingly in partnership with local authorities, environmental groups and users to deliver it. This LEAP will form an important focus for partnership by raising awareness of issues, allowing better communication between partners and will help to target resources where they are needed most. It will, however, primarily act as a framework for the Agency to develop its technical knowledge and expertise to ensure that we continue to protect and enhance the environment under our guardianship.

1.0 INTRODUCTION

1.1 THE ROLE OF THE ENVIRONMENT AGENCY

GUARDIANS OF THE ENVIRONMENT

The Environment Agency for England and Wales is one of the most powerful environmental regulators in the world. It provides a comprehensive approach to the protection and management of the environment by combining the regulation of land, air and water.

Our organisational vision is:

A BETTER ENVIRONMENT IN ENGLAND AND WALES FOR PRESENT AND FUTURE GENERATIONS.

Our principal aim, set out in the Environment Act 1995, is to protect and enhance the whole environment, thus contributing to the worldwide environmental goal of sustainable development. This aim is achieved through our objectives, which are set by ministers, and include:

- an integrated approach to environmental protection and enhancement, considering the impact of all activities and natural resources;
- delivery of environmental goals without imposing excessive costs to industry or society as a whole;
- provision of clear and readily available advice and information on its work; and,
- development of a close and responsive relationship with the public, including local authorities, other representatives of local communities and regulated organizations.

Our main aims are to:

- achieve significant and continuous improvements in the quality of land, air and water, actively encouraging the conservation of natural resources, flora and fauna;
- maximise the benefits of integrated pollution control and integrated river basin management;
- provide effective defence and timely warning systems for people and property against flooding from rivers and the sea;
- achieve significant reductions in waste through minimisation, reuse and recycling and improve standards of disposal;
- manage water resources to achieve the proper balance between the needs of the environment and those of abstractors and other water users;
- secure, with others, the remediation of contaminated land;
- conserve and enhance the amenity of inland water and promote the use of such waters and associated land for recreational purposes including navigation;
- inform the public through open debate and provide sound information based upon rigorous research; and,
- set priorities and proposed solutions that do not impose excessive costs on society.



The Agency offers pollution prevention advice

1.0 INTRODUCTION

1.2 THE LEAP PROCESS

The process of producing a LEAP involves several stages and its goals are to:

- focus attention on the environment of a specific local area;
- involve all interested parties in planning for the future well-being of that area;
- agree a vision for that area which guides all our activities over the next 10-20 years; and,
- establish an integrated strategy and plan of action for managing and improving the local environment over the next five years.

The LEAP process is designed to encourage input from individuals and organizations and therefore promote protection through partnership (see Section Five). Ideally, the process will influence the planning policies of others

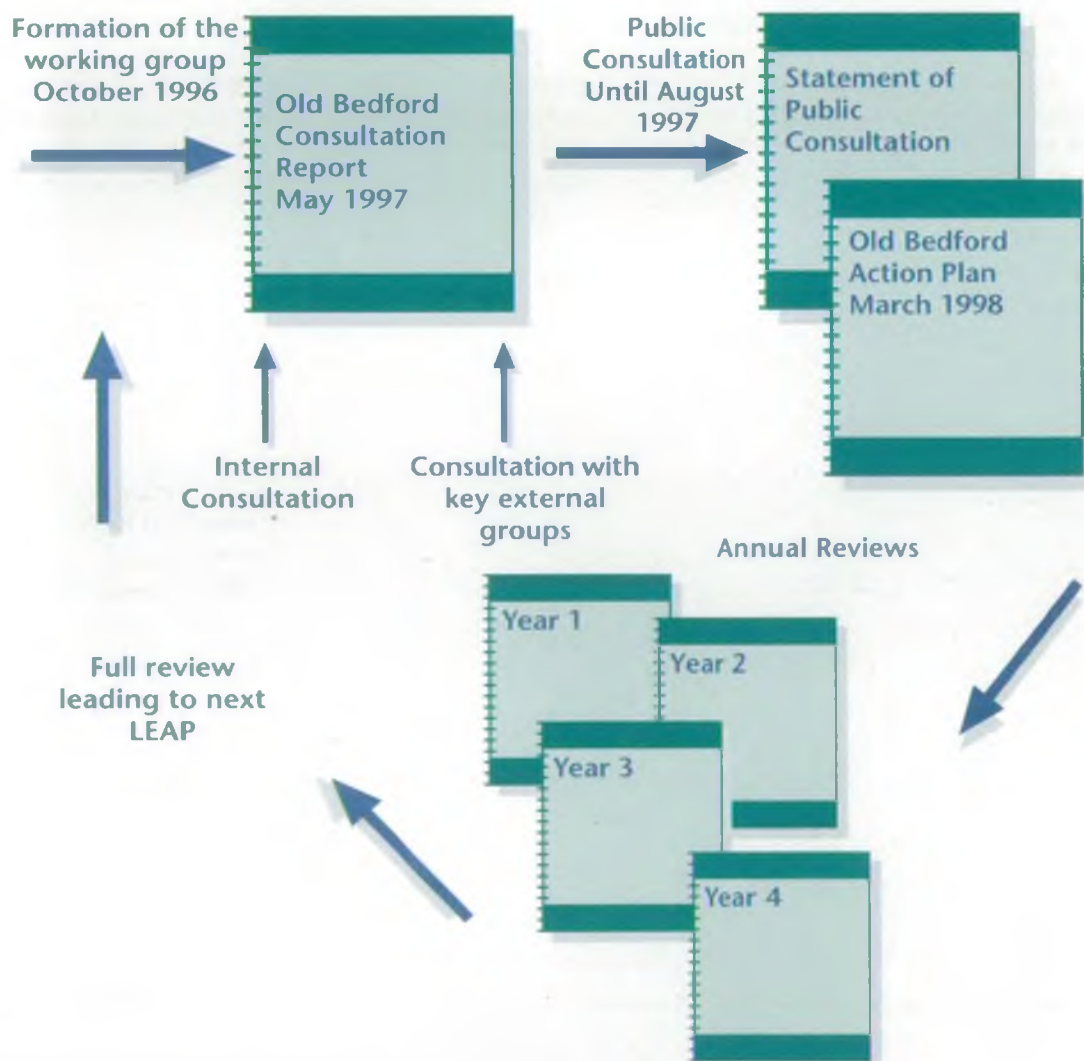
where their decisions may impact on the management of the environment.

As the flow chart indicates, the LEAP process includes the production of several documents: A Consultation Report, a Statement of Consultation, an Action Plan and Annual Reviews. The Consultation Report for the Old Bedford Plan Area, (May 1997) describes the vision for the LEAP area, identifies issues and is the focus for discussion. The Statement of Consultation (January 1998) lists the responses from the consultees along with our views on these responses. It is issued to all parties that made a formal response to the Consultation Report. A copy is available on request. The Action Plan details the issues (and actions to address them) from the Consultation Report that are to be taken forward. Progress is assessed each year via the Annual Review.

The whole process is fully repeated after five years.

This is the first of the six LEAPs to be completed for our Central Area. We are aiming to complete them all by the close of the year 2000.

THE LEAP PROCESS - A FIVE YEAR PLAN



2.0 THE OLD BEDFORD AREA

The Old Bedford LEAP Consultation Report (May 1997) gives detailed information on the LEAP area and an account of the uses, activities and pressures put on it. This information is summarized below.

2.1 THE LOCAL ENVIRONMENT

The plan area is mainly within Cambridgeshire, which is the fastest growing county in Britain in terms of population. This growth has led to increased development pressures in Cambridgeshire in the form of housing and road transportation.

This area comprises a combination of the Ouse Washes and the Middle Level river systems (which are described below).

The Ouse Washes were created in the 17th Century to provide storage of floodwater for the Bedford Ouse catchment and so to prevent flooding of the surrounding Middle and South Levels. Whilst the Levels have become productive arable farmland, the Washes are now sites of nature conservation value. Individual Washes are separated by ditches draining from the Hundred Foot River towards the Old Bedford/Delph (see map 2). Running parallel and to the north west of the Old Bedford/Delph is the Old Bedford/Counterdrain which drains the land immediately to the west of the Ouse Washes. These main river systems are operated by the Agency.

The Middle Level has a catchment area of 70,500 ha of which 48,500 ha are fenland and lies below mean sea level. This area is subdivided into 37 Internal Drainage Districts from which run-off water is pumped into the main arterial drainage system from where it is discharged into the Tidal Ouse. This drainage system is under the jurisdiction of the Middle Level Commissioners (MLC).

2.1.1 GEOLOGY AND HYDROGEOLOGY

The LEAP area consists of two distinct geological areas; the Huntingdon and Peterborough area and the Fenlands. Most of the area's solid geology is overlain by a variety of drift deposits. In the Huntingdon and Peterborough areas, till overlies Oxford Clay. The Fenland area is covered by extensive drift deposits which include unconsolidated peats, clays, silts, sands and gravels.

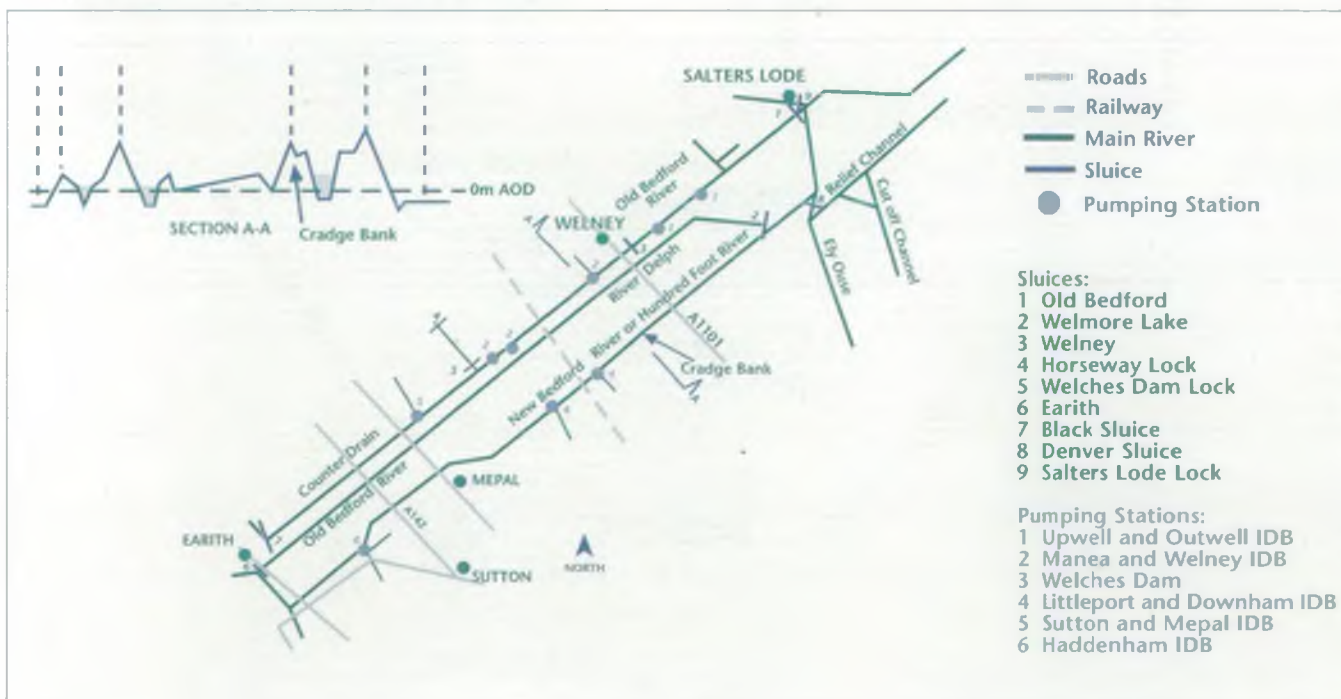
The limited local groundwater available is found within the area's drift deposits of sands and gravels. Mineral extraction sites are associated with these deposits. Old quarries and brickpits have and will be used for the land filling of waste.

2.1.2 TOPOGRAPHY AND LANDSCAPE

Land is predominantly cultivated with little natural or semi natural habitats remaining. Woodland cover is sparse. However, the Fens support a number of habitats, ranging from marshes, swamps and fen meadows to neutral unimproved or improved grasslands, which add character and offer outstanding opportunities for nature conservation. Rivers, drains and ditches also exert a strong influence on the landscape.

The combination of geology and physical processes has given rise to this low-lying flat area with its relief rarely reaching 10 m above sea level. In fact, the lowest point in the country is found at Holme Fen (TL 209 892) at -3 m Above Ordnance Datum (AOD). The Fens provide a landscape of open panoramas and expansive skies where changing weather patterns have a significant effect on the visual character of the area.

MAP 2: SCHEMATIC OF THE OUSE WASHES



2.0 THE OLD BEDFORD AREA

2.2 SUMMARY OF USES, ACTIVITIES AND PRESSURES

The uses, activities and pressures were originally explored in more depth in the Consultation Report. Given below are some key extracts.

2.2.1 URBAN DEVELOPMENT

The continual development of our cities, towns and countryside is the single most significant influence on the environment. Development may include new buildings, changes in land use, the construction of new roads, the extraction of minerals or disposal of wastes.

In the 'Old Bedford' area, there are four Local Planning Authorities and two County Councils with whom the Agency liaises with regard to development and planning (see map 3):

Fenland District Council
Cambridgeshire County Council
Huntingdonshire District Council
Norfolk County Council
East Cambridgeshire District Council
Kings Lynn and West Norfolk Borough Council

In **Fenland**, the market towns of Chatteris and March have been identified for concentrations of future development with allocations for housing, business, general industry, storage and distribution purposes. Whittlesey has been allocated some 1800 dwellings. However, the majority are to the north of the town - outside of this LEAP area.

The villages of Doddington, Wimblington, Manea and Benwick have been designated 'Limited Rural Growth Settlements'. In the smaller rural settlements only limited infilling will be allowed.

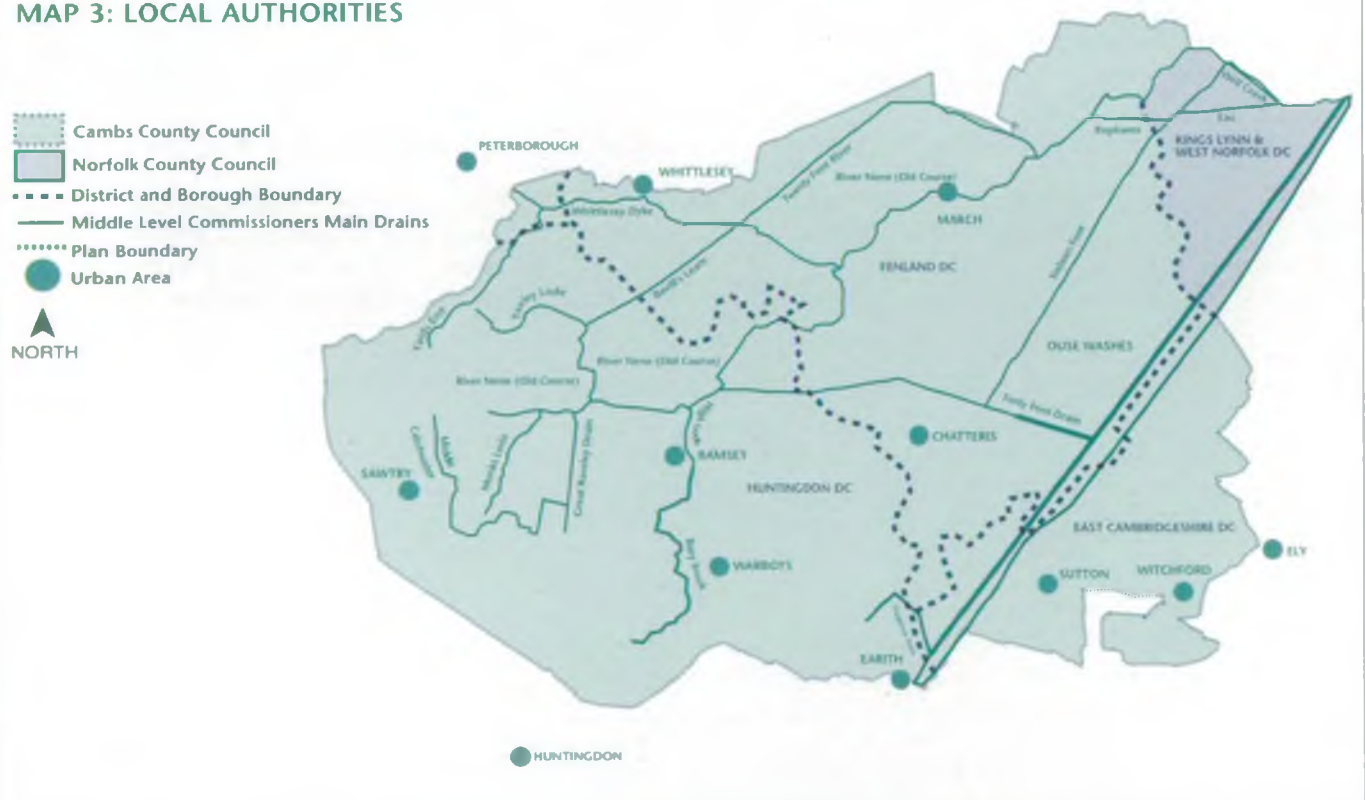
In **Huntingdonshire**, Ramsey has been identified as a market town where a comprehensive development scheme will provide 1300 dwellings by the end of the century. In addition 12 ha of land has been allocated for business and employment purposes. The closure of RAF Upwood as an operational base will release, for sale, a significant number of premises into the town's housing stock. Other parts of the site are being considered for business and light industrial development.

Sawtry and Warboys have both been designated 'Rural Growth Villages' and have substantial allocations for both housing and business. A Development Brief has been prepared for the former Warboys Airfield to provide employment opportunities for the local area.

RAF Alconbury is no longer operational and the Ministry of Defence intend to dispose of it for appropriate alternative development. A Planning Brief for the airbase was prepared by Huntingdon District Council in November 1995. A planning application for the redevelopment of RAF Alconbury was submitted to the council in October 1997. The proposed redevelopment includes warehousing, air freight movements, office, leisure and industrial uses.

The District Council have embarked on the early stages of a review of their local plan and produced an Issues Report in August 1997.

MAP 3: LOCAL AUTHORITIES



2.0 THE OLD BEDFORD AREA

In **East Cambridgeshire**, the Ely Local Plan identifies substantial areas for residential development between the eastern edge of the city and the A10 Ely bypass.

The villages of Sutton and Witchford have been designated as 'Rural Growth Settlements'. A Development Brief has been prepared for land to the north of Main Street in Witchford to accommodate approximately 200 dwellings and 2.4 ha of community open space.

Developments approved at Elean Business Park, Sutton include a new sales area for Cambridge Machinery Sales, a proposed straw burning power station and a development of 12 ha of glasshouses.

The district council produced a deposit draft local plan in September 1997. When adopted (anticipated summer 1999), this plan will replace the East Cambs local plan (1993) and the Ely Local Plan (1991). The deposit draft increases the housing allocation in Ely to 93 ha. The majority of this being to the west of Ely. In addition over 15 ha of land are allocated for a business park at Angel Drove.

Soham is the only East Cambs settlement in the LEAP area identified as a regional growth settlement with allocations for housing and business. Other settlements are allocated as group or infill settlements only.

Only a small area of **Kings Lynn and West Norfolk** is in the LEAP area, eg, small settlements such as Welney, Nordelph and Upwell; none of which have allocations for development.

2.2.2 TRANSPORT

East Anglia (RPG 6, 1991) is recognised as the gateway to Europe, and as such, the main justification for improvements in the transport infrastructure is the increase in demand for the movement of goods and people.

Construction works are presently under way to upgrade the A1 trunk road to a three-lane motorway between Alconbury and Norman Cross.

A relief road for the **B1040** at Ramsey and Bury has been identified as an access requirement in association with the proposed housing and employment development.

The feasibility of upgrading the **A1123/1381** Huntingdon - St. Ives - Sutton road, with bypasses for Needingworth (complete), Bluntisham (recommended), Earith and Sutton, is being considered.

Norfolk County Council has carried out a feasibility study of the raising/realigning of the **A1101** Welney to Littleport road across the Hundred Foot Washes incorporating flood openings through the road to overcome the problem of road closures due to flooding. The road is subject to inundation and closure when the Washes, between the

Hundred Foot River and Old Bedford River is flooded as part of the Agency's flood control contingencies for the area.

2.2.3 AGRICULTURE AND FORESTRY

The majority of the Old Bedford area is peat fenland and is recognised as comprising some of the most fertile and productive agricultural soils in Britain. The area comprises 75.8% of Grades 1 and 2 land.

In 1995, the total agricultural area in the 'Old Bedford' River area extended to 78,918ha. Of this total, 82% was used for cropping/fallow with a further 8% temporarily set-aside from food production.

Of particular significance is the 11% decrease in the area of cropping/fallow from 1985 -1995. The principal reasons for this change are the introduction of set-aside and financial incentives to encourage tree planting and farm diversification.



In the Old Bedford area, most farms are still (cereal) crop based due to top quality soils and yields. For the same reasons, horticulture is the second largest 'farm type'. However, this has also experienced a decline. One of the prime reasons is due to the shifting demands of the market and the changing preferences of the public as well as farmers opting for other crops eligible for EU incentives.

Due to the predominance of agriculture in the Old Bedford area, woodland cover accounts for less than 1%. However, tree planting and woodland creation is likely to increase in the future, as farmers are actively encouraged to create woodland areas on their land via financial incentives and grants. County Farms Estate has assisted in the creation of more than 20 sites across Cambridgeshire including Bearts Farm, Manea.

There are some notable ancient woodland areas within the area, the most substantial being Monks Wood at Abbots

2.0 THE OLD BEDFORD AREA

Ripton. It covers 160 ha, is a SSSI and is one of the best examples of lowland ash-maple and oak-hazel woodland in Britain. Aversley Wood is smaller, covering 60 ha and is also an SSSI. It is an ancient woodland site dominated by ash-maple woodland on heavy clay soils.

2.2.4 POWER GENERATION AND INDUSTRY

Both power generation and industrial processes impact on the environment, ie, emissions to air, solid waste disposal to land and effluent disposal to the water environment.

POWER GENERATION

Power generation processes can contribute to acid rain formation and can also impact upon local air quality through the release of combustion gases and particulates.

There are proposals to construct a 31 megawatt straw burning power station on the former Mepal Airfield at Sutton, Cambridgeshire, which now forms the Elean Business Park. The straw burning power plant would occupy four hectares of the site. Although planning permission has been granted for the station, the intention to construct has not been confirmed as yet.

The main air pollutants from the proposed power plant would be combustion gases. The amount of these gases that can be emitted by the plant is controlled as part of an Integrated Pollution Control (IPC) authorization issued by the Agency. This authorization has not been finalised as yet.

INDUSTRY

This LEAP area is mainly agricultural, hence, there are only three processes that have IPC authorizations from the Agency under Part 1 of the Environmental Protection Act (EPA90):

Hanson Brick Ltd, Saxon Works, Ceramic Process
Whittlesey:

Chiroscience plc, Holme: Organic Chemicals
Manufacture

Elean Power Ltd, Sutton, near Ely: Combustion Process

In addition to the above, there are also two other authorized processes just beyond the area of this plan which can have an influence on the environment within the plan area; Hanson Brick Ltd King's Dyke Works at Whittlesey and Orton Works at Yaxley.

All of these processes release quantities of oxides of nitrogen, carbon and sulphur (from combustion), volatile organic compounds, and halogens into the air. They do not have significant discharges of effluent to surface (controlled) waters. Discharges to land from these processes are mainly disposed of outside of the process but within the area by specialist contractors.

Within the area there are other smaller, lesser polluting processes from which releases to air are controlled by the Local Authorities under EPA90. Regulations of discharge to controlled waters from such processes remain the responsibility of the Agency under the Water Resources Act 1991 (WRA91).

2.2.5 WASTE TREATMENT AND DISPOSAL

SOLID

The disposal of waste to land is primarily regulated under Part II of the EPA90. Activities that require Waste Management Licenses include landfill sites, transfer stations, incinerators, metal recycling facilities, transportation and waste storage and treatment facilities.

In recent years there has been a major change in the philosophy of landfilling waste. Previously a policy of 'dilute and disperse' was applied. This assumed that any leachate generated could be accepted by an aquifer. However, all new sites taking any potentially polluting waste must now be designed on a containment basis in order to protect all groundwaters, in line with our Groundwater Protection Policy.

Another problem with landfill sites is landfill gas. This is a complex mixture, with major constituents being methane and carbon dioxide, which is generated by the anaerobic breakdown of putrescible waste. At sites which generate landfill gas positive extraction and flaring of the gas can be used to control it. Alternatively the gas can be used directly or indirectly to generate electricity.

The main operational landfill sites for household, commercial and industrial wastes are located at March, Warboys, Somersham and Grunty Fen near Ely. The increasing costs of waste disposal to landfill have caused a high incidence of flytipping especially around the Ely and Whittlesey areas.

Clay excavation for brick manufacture in the Peterborough area has recently seen the exhaustion of several smaller quarries but the major extraction areas have extensive deposits. The deep nature of such exhausted voids make them possible candidates for development as containment landfill sites.



Orton Works, Yaxley

2.0 THE OLD BEDFORD AREA

WASTE WATER

This is the use of the water environment, in particular surface water for the disposal, dispersal and dilution of a wide variety of effluents. The quality of any effluent discarded to controlled waters must comply with the details of the consent or authorization issued by the Agency.

Most domestic sewage is treated by Sewage Treatment Works (STWs) owned and operated by AWS, but there are a few small privately operated STWs and many septic tanks.

Within the area, there are 15 main STWs with dry weather flow, greater than 100 cubic metres per day (m^3/d). The sewage effluents treated are predominantly of domestic origin, although some STWs also receive trade wastes.

The Somersham STW has been given discretionary funding under the second Asset Management Planning (AMP2) process due to its discharge having an unacceptable impact on the water quality in the Cranbrook Drain.

The Old Course of the River Nene in March town centre is seriously affected by discharges of storm sewage and misconnections of foul drainage into surface water sewers. A scheme to assess and reduce the impact of sewer discharges is planned for completion in the period 1995-2000. Other combined sewer overflows have been proposed by AWS for remedial work after the year 2000.

Many vegetable washing, grading and processing sites are found in this area due to the amount of intensive arable farming. These wash-waters have traces of pesticides, especially tecnazene and chlorpropham, which recent surveys have shown are not in high enough concentrations to cause any adverse impact.

McCain International, a potato processing factory at Whittlesey discharges its treated trade effluent used for cooling water into King's Dyke via the former brickwork's pit. The main trade effluent discharge enters the River Nene.

March Landfill, operated by East Waste Ltd has a consent to discharge 230 m^3/day of site drainage to a tributary of the Twenty Foot River. Leachate from the site is discharged to foul sewer and as it contains prescribed substances, a consent is required from the Agency.

2.2.6 THE NATURAL ENVIRONMENT

The broad habitats which exist are Fens, floodplains, grazing marsh, reedbeds and cereal field margins. These form important local landscape features.

There are 11 SSSIs within the plan area. The key wetland site of nature conservation value is the Ouse Washes which has subsequently been designated an SSSI, Ramsar site and a SPA. Its dual functions of flood relief and summer grazing and its extensive area, combine to create an internationally important wildlife site - especially for birds. English Nature (EN) in partnership with the Agency, RSPB, Wildlife Trusts, Internal Drainage Boards (IDBs) and user groups are committed to implementing a management strategy for the Washes and meet regularly. The Old Bedford/Counterdrain

is designated as a candidate SAC for spined loach. EN and the Agency have completed a conservation strategy and agreed a consenting protocol for this watercourse.

The Middle Level drainage system is managed primarily for land drainage, flood defence and navigation and as such, the watercourses are engineered, trapezoidal in cross section with a narrow vegetative margin. Conservation survey data within the plan area is limited to designated main rivers and consequently the conservation status of the Middle Level system is yet to be fully ascertained. The MLC Conservation Strategy Group was formed in 1993 to assist the Commissioners in the development of a conservation strategy. Woodwalton Fen is a candidate SAC for fen meadow's habitat.

There are 211 km of coarse fisheries in the plan area but no designated game stretches. All the rivers have a good to excellent fish biomass with roach as the dominant species. Invertebrate sampling has revealed an array of notable species such as beetles, cased caddis, snail and flatworm.

2.2.7 RECREATION

Our recreational duties are to promote the use of inland and coastal waters and to take account of recreation opportunities whilst undertaking all of our functions. Also, we seek to preserve and maintain public access to places of natural beauty or sites of historic interest. The Ouse Washes provides a focus for recreational activities; the annual influx of migrating birds attracts many birdwatchers and footpaths are used by ramblers and the general public. We actively seek to collaborate with others in order to maximise the recreational potential of appropriate areas.



Angling in the Middle Level

2.0 THE OLD BEDFORD AREA

The majority of the rivers and drains within the area are actively fished. The Middle Level System has been a popular coarse fishing venue over many decades, with all the major water courses let to angling clubs. In addition, we lease the Old Bedford/Counterdrain, the Old Bedford/Delph and the Hundred Foot River to clubs where the angler's needs must be carefully balanced with the other users of the Ouse Washes. All rivers and drains are subject to the annual close season.

The number of stillwaters in the plan area is relatively small. Coarse fishery complexes at Mepal and Earith have been developed from gravel pits. A lake at Holme Fen Drove is a day ticket trout fishery, whilst game fishing is also organised at one of the Earith pits. The Middle Level system provides some 150 km of navigable waterways enjoyed by local boaters and visiting craft. These waterways also create an important inland navigable link between the Great Ouse system and the national inland waterways system, via the River Nene and the Northampton (narrow beam) Arm of British Waterways Grand Union Canal.

Significant problems exist with access to the Old Bedford River at the tidal doors. There are also siltation risks to navigators using the Hundred Foot (New Bedford) and the Tidal River Ouse.

2.2.8 LANDSCAPE AND HERITAGE

We have a statutory duty to conserve and enhance landscape and archaeological features such as Areas of Outstanding Natural Beauty (AONBs) and Scheduled Ancient Monuments (SAMs).

In the Old Bedford area there are 21 SAMs.

Peat deposits provide an ideal protection for fenland archaeology. The waterlogged soils must be retained for organic remains and other buried items to survive.

2.2.9 FLOOD DEFENCE

A major activity within this plan area is the management, provision and maintenance of flood defence and flood storage. Within the flood defence system of the Ouse Washes certain channels are designated as main river. We have control over the construction of any structure in or close to the statutory main rivers and are responsible for their maintenance and control. Many of the remaining watercourses are under MLC's jurisdiction.

The Ouse Washes river system has four main rivers (River Ouse, Old Bedford/Counterdrain, Delph/Old Bedford and the Hundred Foot River) with an internal ditch system and control structures. Water levels in this section are controlled by a series of sluices and pumping stations. The internal ditches act as wet fences, provide drinking water for cattle, maintain high summer water tables and aid in the drainage of floodwater. We operate a 24-hour flood warning service.

2.2.10 WATER ABSTRACTION

Abstraction licences are issued to control water use in order to protect the water environment and other water users. Before any abstraction licence is issued, the impact is fully considered. In particular the following criteria must be satisfied: there is sufficient water available; the need for the water is justified; the rights of other abstractors are protected and the river and wetland environment is not adversely affected. The summer surface water resources of most of the LEAP area are considered to be fully committed. The policy for the summer surface water resources of the area sourced from the Hundred Foot River is under review. There is winter surface water available. There are no major aquifers in this plan area.

In this LEAP area, water is mostly used to meet the needs of spray irrigation for the production of vegetable and salad crops (55% of the total quantity licensed). In most other LEAP areas the dominant use of water would be for public supply. However, all the water supplied for the public is imported to this area and the quantity is licensed in other LEAP areas.



Spray Irrigation

Industrial use of water (18% of the total quantity) includes activities such as vegetable washing, food processing, concrete manufacture, brick manufacture and sand and gravel washing plants. The remainder of water licensed consists of raw water transfers and miscellaneous uses.

3.0 REVIEW OF THE CONSULTATION PROCESS

3.1 THE CONSULTATION PROCESS

Local Environment Agency Planning is a process through which we are able to identify environmental problems and issues in the LEAP area. Initially an Early Consultation meeting is held; this is an informal gathering of interested parties to encourage them to express their views or concerns. Following this, a Consultation Report is produced which is a broad summary of the locality including the uses and activities that put pressure on its natural resources. It is prepared as a basis for open consultation and discussion both internally and externally. To encourage feedback the Consultation Report is widely distributed. It is also promoted via items in local newspapers and leaflet and poster displays in local libraries and local authority offices. After the consultation period (usually three months) the responses are analyzed and the Action Plan produced. The Annual Reviews are also distributed to interested parties. They document achievements and report on changes in the activity programme.

The timetable for this LEAP is outlined below:

Early Consultation	5 February 1997
Publish Consultation Report	21 May 1997
Public Consultation	May to 25 August 1997
Action Plan	March 1998
1st Annual Review	May 1999
Five Year Review	2002

3.2 RESULTS OF CONSULTATION

We value public consultation as it enables us to gain a better appreciation of different view points on the environmental issues identified. A summary of the 30 responses received during the consultation period is found in the document 'Statement of Consultation' (February 1998). This document, produced prior to this Action Plan, identifies the main comments and views of the consultees and our responses to the remarks made. The Statement of Consultation was sent to all consultees who formally responded to the Consultation Report.

The overall number of responses given on a particular issue are given in Table 1 below. A list of organizations and individuals who responded to the Consultation Report can be found in Appendix I.

The key messages coming through these responses are given below:

The most responses were in relation to the cSAC/SPA for the Ouse Washes and the need to raise the profile of Woodwalton Fen cSAC;

Strong support was also expressed for reviewing water resources; addressing siltation and maximising the recreational opportunities in the area including the need for a review of the Old Bedford navigation;

Few responses were given in relation to water quality and waste matters which was lower than expected. (However, we still feel that these issues are important and have stated them in this action plan); and,

A variety of remarks on the plan layout and contents were also made.

3.3 FURTHER ACTION

The Consultation Report identified 22 issues, of these 17 have been brought forward into the Action Plan albeit in an amended form due to the consultation responses. Three new issues have been identified and incorporated into this Action Plan (making a total of 20). Issues have been excluded because;

- they do not come under the Agency's remit;
- they do not follow the SMART (Specific, Measurable, Agreed, Realistic and Timetabled) principle;
- they are part of our routine work; or,
- they are longer-term management issues (ie, more than five years) now covered in the Protection Through Partnership (Section Five).

The following table summaries which issues have been taken forward into the Action Plan.

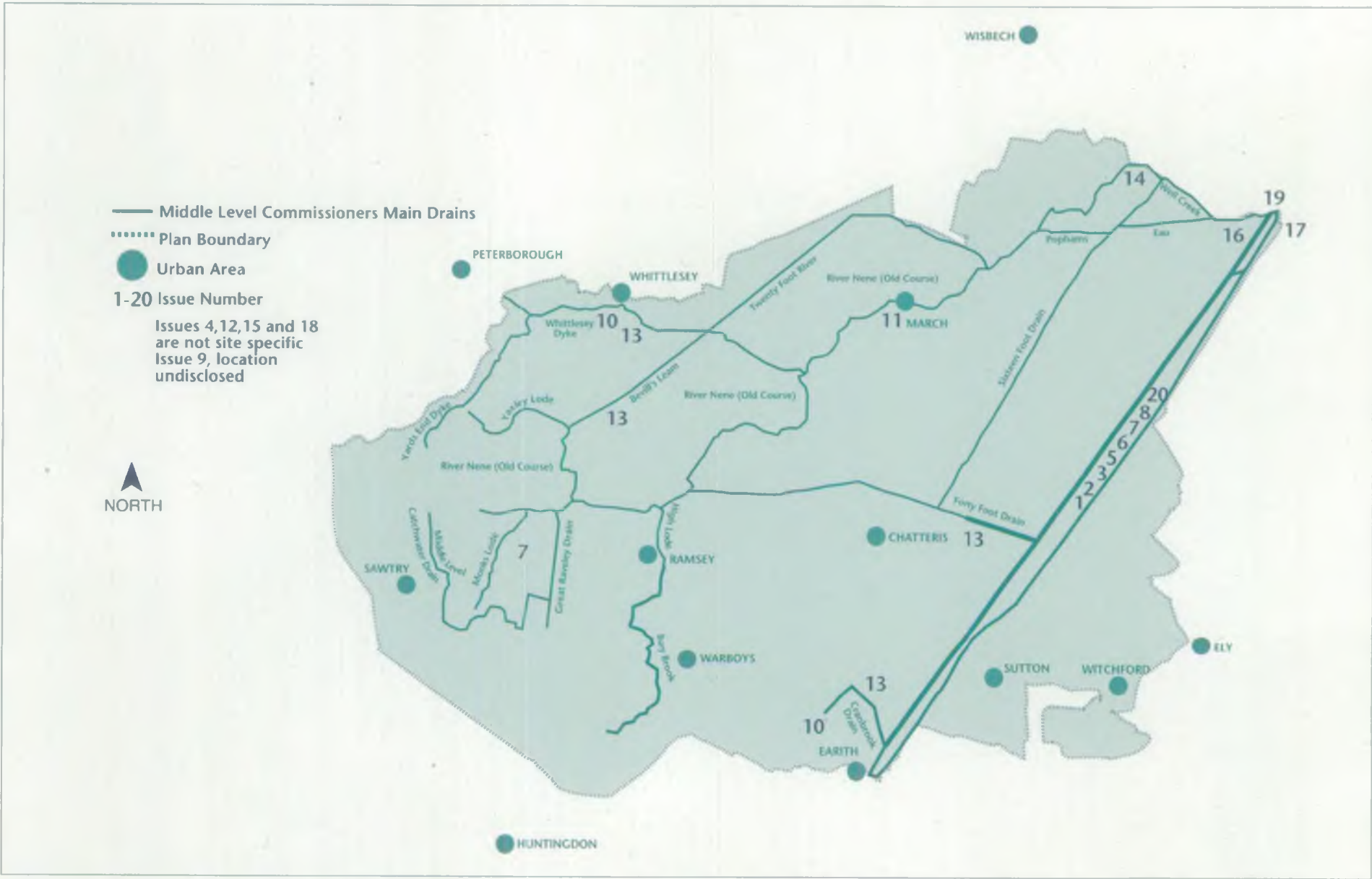
3.0 REVIEW OF THE CONSULTATION PROCESS

TABLE 1: CONSULTATION REPORT AND ACTION PLAN ISSUES

Consultation Report No.	Consultation Report Issue Title (New Issue Title)	No. Responses	Reason for excluding/ including	Action Plan No.
1	Support And Develop cSAC.	11	(Now also includes Woodwalton Fen)	7
2	Maintain Flood Defence Capacity.	8		1
3	Draining The Ouse Washes After Winter Floods.	7	Combined issues 3 and 4 'Limit Summer Flooding To The Ouse Washes'	2
4	Limit Summer Flooding To Ouse Washes.	7		
5	Levels Cannot Be Maintained In Summer For All Users.	6		3
6	Abstraction By IDBs Not Controlled By Licences, Hence Posing A Risk To River Levels.	9		4
7	Control Weed Growth In Old Bedford/Counterdrain.	9		5
8	Access To Ouse Washes Via Cradge Bank.	6		6
9	Scope For Habitat Protection And Development.	8		8
10	Causeway Flooding.	4	Routine work: No longer considered an issue.	
11	Concerns Over Sustaining Farming In The Longer-Term.	7	Covered in Section 5	
12	March Landfill - Groundwater Protection.	2	Routine work	
13	Tyre Dump Posing Pollution Risk.	3		9
14	Improvement To Sewage Treatment Works.	5		10
15	Adverse Impact Of Combined Sewer Overflow In March Town.	5		11
16	Adverse Effects Of Eutrophication.	5		12
17	Failures To Meet Water Quality Objectives.	2		13
18	Unsewered Villages - Upwell And Outwell.	4		14
19	Review Old Bedford Navigation.	6		16
20	Siltation In The Hundred Foot River And The Tidal River.	8		17
21	Investigate The Poor Survival Of Fish Stocks.	3	Routine work	
22	Lack Of Biodiversity Data.	5		18
New Issue	Review And Promote Appropriate Public Access To Inland Waters.	-	Due to consultation	15
New Issue	Lack Of Monitoring Of Slacker Flow Out Of The Tidal River.	-	Due to consultation	19
New Issue	Lack Of Water Quality Data In The Hundred Foot, Old Bedford And Counterdrain.	-	Due to consultation	20

3.0 REVIEW OF THE CONSULTATION PROCESS

MAP 4: OLD BEDFORD LEAP AREA ISSUES



4.0 ACTIVITY PLANS

THE ACTIVITY PLAN SPECIFICS:

- The organisation(s) which will implement the proposed activities, either in a lead role or as a key supporter.
- The timetable for the activity.

The following table outlines the agreed actions for each issue identified via the consultation process for this LEAP area.

NB The issues and activities are not presented in any order of priority and are in summary.

SUMMARY OF ISSUES (SEE MAP 4)

The issue numbers have changed markedly from those used in the consultation document. Table 1 (Page 13) describes where changes have been made.

a) Managing the Ouse Washes

- Issue 1: Need to maintain flood defence capacity.
Issue 2: Need to improve our management of flooding on the Ouse Washes.
Issue 3: Water levels cannot be maintained in the Old Bedford/Counterdrain in summer.
Issue 4: Abstraction by IDBs not controlled by licences, hence posing risk to river levels.
Issue 5: Control weed growth in the Old Bedford/Counterdrain and the Old Bedford/Delph.
Issue 6: Access to the Ouse Washes via Cradge Bank is causing serious deterioration and hence increases flood risk.

b) Biodiversity and Nature Conservation

- Issue 7: Support and develop candidate SACs.
i) Support the Ouse Washes cSAC.
ii) Support the Woodwalton Fen cSAC.
Issue 8: Scope for habitat protection and improvement.

c) Land Use and Development Pressures

- Issue 9: Tyre dump posing pollution risk.

d) Impact of Sewage Treatment Works on Water Quality

- Issue 10: Improvement to sewage treatment works.
Issue 11: Adverse impact of combined sewer overflows in March town.
Issue 12: Adverse effects of eutrophication.
Issue 13: Failures to meet water quality objectives.
Issue 14: Unsewered villages - Upwell and Outwell.

e) 'Enjoyment of the Waterways': Recreation and Navigation

- Issue 15: Review and promote appropriate public access to inland waters.
Issue 16: Review the Old Bedford navigation.
Issue 17: Siltation in the Hundred Foot River and the Tidal River.

f) Needs for Monitoring and Investigation

- Issue 18: Lack of biodiversity data.
Issue 19: Lack of monitoring of slacker flow out of the Tidal River.
Issue 20: Lack of water quality data in the Hundred Foot River, Old Bedford River and Counterdrain.

Key to codes used in tables

Costs:

- R: Routine or revenue budget
N/K: Not known at this time
k: thousand

Agency staff responsibilities:

- EPm: Area Environment Planning Manager
EPRm: Area Environment Protection Manager
FDm: Area Flood Defence Manager
FERm: Area Fisheries, Ecology and Recreation Manager
WRm: Area Water Resources Manager

All other abbreviations are given in Appendix II which also includes a glossary.



Horseway Arm Middle Level Section

4.0 ACTIVITY PLANS

a) Managing the Ouse Washes

This topic is concerned with the need to continue to manage the Ouse Washes so that its function as a flood storage area is preserved whilst taking every opportunity to enhance the wildlife and habitat. Bird life, fish species such as the spined loach and vegetation are so valued that they have led to national and international designations so that they can be protected.

Improvements to how we control flood water around the washes, a review of how water levels and irrigation are managed, weed control techniques and arrangements for access to the Washes are some of the activities stated in the plan.

No	Issue	Activity	Responsibility	Cost (£)	97/8	98/9	99/00	00/01	01/02	Future	Comments
1	Need to maintain flood defence capacity	Relurbishment of Welches Dam Pumping Station, following a detailed approval of the Counter-drain System.	Agency (MLC, IDB) FDm	230k	■	■					The project aims to maintain our current pumping capacity from the Counterdrain over the next twenty years. Welches Dam was in need of repair and now the structure includes a pumping station which will help keep the water moving around the system. No other works are planned at present. Seepage from the Cranbrook into IDB is not considered by MAFF to be fully justified and thereby require capital works.
2	Need to improve our management of flooding on the Ouse Washes. It is desirable that summer flooding is limited and that the washes are drained rapidly after winter inundation. Summer flooding is undesirable because it makes it more difficult to maintain open grassland and to manage the Washes for conservation, wildfowling and grazing.	Reconstruction of Welmore Lake Sluice to improve the discharge capacity by 50% and seek to avoid excessive siltation.	Agency FDm	5200k	■	■	■				This refurbishment was recommended in the Ouse Washes Flood Control Strategy (1995). This was commissioned to investigate why the Washes were flooding more frequently over the last 20 years and how this could be best managed. No single cause was determined; a combination of climate and land use change in the upper catchment resulting in more rapid run-off were discussed. These works will increase the sluices capacity by 50% and also incorporate a pumping station to allow water movement in times of low flow. The Flood Control Strategy and associated summer flooding project also raised the issue of raising the Earith Sluice summer drawmark which would require an act of parliament to alter. Quicker drainage from the land may also prevent water of high BOD being discharged back into the water courses which poses a threat to water quality.
	Siltation in the Tidal River is avoided so as to maximise discharge from the Ouse Washes.	Seek adoption of the Wash River Outfall Strategy. Undertake a Denver Operational Review. Report due Jan 1998.	Agency FDm	5910k	■	■	■	■	■	■	The report will consider some dredging and training walls in the Tidal River to encourage faster flows and self-cleansing channels. This concerns the Ely Ouse River as well and is key to resolving many issues in the catchment of the Great Ouse.
		Carry out minor dredging on the Hundred Foot River to provide extra channel capacity.	Agency FDm	200k	■	■	■				The extra channel capacity will reduce the number of times Earith Sluice opens and floods the Washes. This may also alleviate Tidal River siltation (see issue 18).
		Divert 5m ³ /s of water into the Old West (to relieve pressure on Old Bedford) by undertaking engineering	Agency FDm	800k				■	■		It is envisaged that this will be constructed after Welmore Lake sluice is rebuilt and may be operated in the summer months.

4.0 ACTIVITY PLANS

No	Issue	Activity	Responsibility	Cost (£)	97/8	98/9	99/00	00/01	01/02	Future	Comments
2		works near Hermitage Lock. It is envisaged that this will open before Earith Sluice and so reduce the frequency of flooding of the Ouse Washes.									This will require works adjacent to Hermitage Lock and concurred with the findings of the Summer Flooding Strategy.
3	Water levels cannot be maintained in the Old Bedford/Counterdrain in summer.	Review water resources management rules for transfer into the Old Bedford/Counterdrain.	Agency WRm	R			■	■			There has been a review following recent droughts but more detailed analysis planned for the future.
4	Abstraction by IDBs not controlled by licences, hence posing a risk to river levels.	Raise inlet levels of slackers (in Counterdrain voluntarily) to prevent abstraction when river levels are too low to sustain it.	Agency/IDBs WRm	R	■						Already considered and new cill levels have been included at Glen House Pumping Station. Once the WLMP is agreed, the Ouse Washes Management Strategy Group will aim to work to the targets set out within it.
		Adopt cessation levels on slackers to prevent abstraction when river levels are too low.	Agency/IDBs WRm	R	■	■	■	■	■		This is how the system is currently operated. Discussions are ongoing with IDBs to identify cessation levels in drains and we are installing gauge boards. A national review of licensing legislation started in 1997.
		Encourage a change in the law so that licences will need to be issued for slacker abstraction so that we can determine abstraction quantities and enforce conditions, as necessary.	DETR, Agency WRm	R	■	■					
5	Control weed growth in the Old Bedford/Counterdrain and Old Bedford/Delph This is a necessary activity primarily for flood defence but also to benefit navigation. Consultation clearly identified the need to review the arrangements and timing of weed cutting. A key element to this is consensus being reached between EN and the Agency through liaison with other interested parties.	Conduct a review of weed cutting arrangements with EN towards identifying best practice and emergency planning.	Agency, EN, Ouse Washes Management Strategy Group.	R	■						This is also key to the use of the river as statutory navigation and will benefit overall water quality. In watercourses, decaying plant life exerts an oxygen demand with disastrous effects on animal life (eg potential fish kills) as experienced during recent summers. We have requested both rivers are cut twice a year. EN are considering this at present with particular reference to the designated vegetation and its status.
		Assess and employ the most effective methods, eg, cut by weed boat, use of weed rake machine, cott control with barley straw, etc.	FDm/FERm Agency	56k	■	■	■	■	■	■	The cSAC status for spined loach means that maintenance practices may need to be adapted to protect the species. This may have implications on the methods used and the timings.
			FDm/FERm								
6	Access to the Ouse Washes via the Cradge Bank is causing serious deterioration of the bank and hence increases flood risk. Consultation responses supported the Agency taking a tougher line to ensure enforcement of the management guidelines and how vegetation is managed.	Undertake continued liaison with the Management Strategy Group to seek ways to satisfactorily resolve the issue.	Agency, Ouse Washes Management Strategy Group Meeting. FDm	R	■	■	■	■	■	■	The Management Strategy Group have agreed to publish a reminder to landowners in their newsletter issued by EN to abide by the agreed rules. To erect signs on the gates at Mepal and Welney to remind landowners. Wildfowling and RSPB agreed to fund the leveling of the worst ruts in early spring. Future works may have to consider any recommendations made as part of the inspection of the Ouse Washes under the Reservoirs Act 1975.

4.0 ACTIVITY PLANS

b) Biodiversity and Nature Conservation

As stated above, the Ouse Washes have been designated a SPA, SSSI and a Ramsar site. They have also been put forward, along with Woodwalton Fen, to the EC for consideration as a SAC under the Habitat's Directive. This designation promises to have wide-reaching implications on those who live on and manage these sites. We and other organizations are undergoing a process of reviewing any authorizations given in these areas. In due course, site management statements will be drawn up. We would particularly like to investigate the impact of water draining off Woodwalton Fen on water quality.

No	Issue	Activity	Responsibility	Cost (£)	97/8	98/9	99/00	00/01	01/02	Future	Comments
7i)	<p>Support the Ouse Washes cSAC</p> <p>An area of the Ouse Washes incorporating the Old Bedford/Delph and the Old Bedford/Counter drain and the 304 ha between the watercourses is being proposed as a cSAC for the protection of the spined loach population.</p>	<p>SAC candidates are being considered by the European Commission at present. The final designation process will commence in 1998.</p> <p>EN have already identified conservation objectives for the SAC.</p>	<p>European commission in consultation with EN</p> <p>FERm</p>	R	■	■					<p>A preliminary review of existing consents has been undertaken by the Agency. Formal designation may affect future authorizations and our activities. In the meantime, we should continue to protect the species' habitat whilst undertaking river maintenance works.</p> <p>Project work with EN, the Agency and the University of East Anglia is underway to look at the distribution and future management of the spined loach.</p>
7ii)	<p>Support the Woodwalton Fen cSAC</p> <p>Woodwalton Fen is being proposed as an SAC for its fen meadow habitat and associated botanical interest.</p>	<p>SAC candidates are being considered by the European Commission at present. The final designation process is due to start in 1998.</p> <p>EN have already identified conservation objectives for the SAC.</p>	<p>European commission in consultation with EN</p> <p>FERm</p>	R	■	■	■				<p>We have undertaken a preliminary review of consents. Designation may affect future authorizations and the river management activities of the Agency and the MLC.</p>
		<p>Undertake further water quality sampling to ascertain the impact of draining flood water from the site on local water-courses.</p>	<p>Agency, MLC, IDB</p> <p>FERm/EPRm</p>	500pa	■	■	■	■	■	■	<p>We perceive that this water has low DO and is organically enriched. We would therefore like to undertake chemical and biological monitoring to ascertain whether this is the case and whether this is affecting the local rivers. Need to investigate the feasibility of sampling within cost constraint. We would welcome liaison with MLC and EN on when flooding and draining operations are to take place so that our monitoring can be timed appropriately. If such operations are seen to damage the environment, we would like the opportunity to discuss the site within the context of the water level management plan.</p>
8	<p>Scope for habitat protection and improvement</p> <p>It is recognised that the river habitat in this plan area is predominantly manmade.</p> <p>The unique ecology of drains in the Ouse Washes and the Middle Level system should be maintained, careful consideration of any proposed enhancements is required.</p>	<p>Review best practice for routine maintenance works so that opportunities for maximising nature conservation are exploited.</p> <p>Investigate the potential for specific habitat enhancement partnership (to include the Wet Fens for the Future initiative).</p>	<p>Ouse Washes Management Strategy Group, EN, Agency, MLC conservation groups, external bodies and wildlife groups incl. WWT.</p> <p>FERm</p>	R	■	■	■	■	■		<p>The sustainable management of the area should take into account conservation designations and the Biodiversity Action Plans for water dependant habitats and species (see section 5).</p> <p>Identified projects need to be scheduled and budgeted. There may be opportunities for funding from European or Lottery sources.</p>

4.0 ACTIVITY PLANS

c) Land Use and Development Pressures

Land use is the most significant impact on the environment. In section five, we have highlighted the need to review water resources in the Middle Level within the context of sustaining farming in the longer-term. We also intend to investigate measures to reduce the pollution risk of a major tyre dump found in the LEAP area.

No	Issue	Activity	Responsibility	Cost (£)	97/8	98/9	99/00	00/01	01/02	Future	Comments
9	Tyre dump posing pollution risk	Investigate interim measures such as placing the tyres in cells with fire breaks and access and placing bunds on the perimeter to protect local watercourses to restrict the impact of fire.	Agency, local authorities EPRm/EPm	10k		■	■	■			Interim fire protection and containment is imperative to reduce the risk of water, air and land pollution from fire. There is a need to carry out a feasibility study on the options for doing this. Discussion with the local authorities on a possible redevelopment of the site is also desirable.

d) Impact Of Sewage Treatment On Water Quality

It is paramount that sewage is treated and disposed of effectively. A key indicator of this is whether the rivers meet the water quality objectives we have set for them. Like many areas, the Old Bedford and Middle Level have problem areas which this LEAP seeks to address. These include March where work is in hand by Anglian Water to improve sewer overflows. Improvement work is also planned at Somersham and Whittlesey STWs which will benefit local watercourses. Rural areas have particular problems and now previously unsewered villages are under consideration for sewerage work.

No	Issue	Activity	Responsibility	Cost (£)	97/8	98/9	99/00	00/01	01/02	Future	Comments
10	Improvement to sewage treatment works	Works on Somersham STW to improve ammonia levels in the Cranbrook drain.	AWS	600	■						Improvements to Somersham STW are under construction, funded under the discretionary component of the Water Industry AMP2.
		Works on Whittlesey STW to improve conditions in the Whittlesey Dyke.		N/K			■	■	■	■	Improvements are timetabled for completion by 2000. Under the UWWTD, a cost benefit analysis is being undertaken to assess the case for improvements to Whittlesey which may be funded through AWS' AMP3 or discretionary expenditure programme. If funding is agreed, improvements to the STW will be timetabled between 2000 and 2005. Other improvements may include: phosphate removal at Sawtry which will benefit Woodwalton Fen; future development in Ramsey/Upwood may require STW improvement.
11	Adverse impact of combined sewer overflows (CSOs) in March town. Eight CSOs in March have been identified as unsatisfactory and are included in the programme for improvements agreed with AWS and OFWAT by the year 2000.	Completion of work to remove two of the polluted discharges.	AWS	2M	■	■					The result of this work is that water quality in the Old River Nene through March will be improved.
		Remainder of work to remove or reduce the remaining storm overflows to the river.		2M		■	■	■			There are a number of other CSOs which have experienced problems some of which are under consideration for more frequent maintenance or for refurbishment.

4.0 ACTIVITY PLANS

No	Issue	Activity	Responsibility	Cost (£)	97/8	98/9	99/00	00/01	01/02	Future	Comments
12	<p>Adverse effect of eutrophication</p> <p>Nutrient enrichment of waters by nitrate and phosphate can lead to eutrophication. Enrichment can come from point sources, such as STW discharges as well as diffuse sources, such as run-off from agricultural land.</p>	<p>The Middle Level System has been approved for designation as a Sensitive Area (Eutrophic) under the UWWTD by the Agency national panel. Negotiations are under way for phosphate removal at the relevant STWs.</p>	<p>Agency/DETR/AWS</p> <p>EPm</p>	N/K Costs to AWS		■	■	■	■	■	<p>If the proposal is approved in 1998, phosphate removal at qualifying discharges (ie, those discharges equivalent to a population of more than 10,000) would be required within seven years, ie, by 2004. The qualifying discharges in the Middle Level System are Whittlesey and March STWs and possibly Ramsey.</p> <p>The Nene has been designated as a Sensitive Area (Eutrophic) so any qualifying discharges require phosphate removal by the end of 1998. The Middle Level system will also benefit from the designation of the Upper Nene because water is transferred from the Nene via Kings Dyke at Stanground Sluice.</p> <p>We are also keen to continue to tackle diffuse sources of pollution as well as point sources such as STWs.</p>
13	Failures to meet water quality objectives	<p>Investigate the cause and effect of significant REC failures. A number are attributable to natural causes low flow/algal activity are unworthy of further investigation.</p> <p>Others involving ammonia may well be progressed.</p>	<p>Agency</p> <p>EPm</p>	1	■	■	■	■	■	■	<p>It has been found that the water drained from some IDB areas is very acidic and contains high levels of ammonia. New Fen (Ramsey) and Block Fen (Mepal) are areas which exhibit this phenomenon. However, more research and sampling is required and it is likely that more areas will be discovered.</p>
14	Unsewered villages - Upwell and Outwell	<p>Upwell and Outwell have been identified as requiring a sewerage system under UWWTD by 2005.</p>	<p>AWS Agency local authority</p> <p>EPm</p>	8M	■	■	■	■	■	■	<p>AWS are still to complete a detailed appraisal. A number of first time rural sewage schemes may be dealt with under AMP3 but these are not identified as yet.</p> <p>Other unsewered villages may have a new sewerage system provided by the water company under Section 101A of the Water Industry Act 1991, as amended by Schedule 22 of the Environment Act 1995, which states that the water companies have a duty to provide a public sewer where certain conditions are satisfied.</p> <p>The Agency, through its planning liaison activity, promotes the provision of sewerage for all new developments.</p>

e) Enjoyment of the Waterways

It is believed that there is scope for the Old Bedford area and Middle Level to be opened up for more recreation whereby long established pastimes such as angling and boating could be enhanced by improved footpaths and access points. Various local authorities, county councils, user groups, MLC and ourselves have come together in project groups to devise strategies to explore this theme. There is also a need to review the Old Bedford statutory navigation and its management as the river has been difficult to enjoy due to low water levels, siltation and weed growth. Siltation in the Hundred Foot and especially in the Tidal River is a key issue which we are determined to find a way forward. It is linked to a number of other issues in the River Great Ouse catchment.

4.0 ACTIVITY PLANS

No	Issue	Activity	Responsibility	Cost (£)	97/8	98/9	99/00	00/01	01/02	Future	Comments
15	Review and promote appropriate public access to inland Waters In Conjunction with other organizations	<p>Opportunities for walking and other water-based recreational activities (including angling) should be investigated inline with agreed recreation/visitor and tourist strategies. To ensure that the needs of less able-bodied persons are also considered.</p> <p>Initiatives in the Ouse Washes should not conflict with existing uses and the conservation objectives of the area.</p>	<p>Agency collaboration with county and district councils, MLC, wildlife trusts and other external parties.</p> <p>FERm</p>	30k		■	■	■			<p>Ongoing process. Any specific projects where Agency input (technical or monetary) should be identified at the earliest opportunity. There is also European (5b) money available until 1999 within this area in addition to potential lottery grants.</p> <p>There is a need to take into account the interests and recommendations of the Fenland Waterways Regeneration Project, the Water Recreation Strategy for the Eastern Region, the Fenland Tourism Group report (prepared by British Waterways and Scott Wilson), the Fenland Countryside Project, Inland Waterways Association and the Middle Level Waterways Users Committee.</p>
16	<p>Review the Old Bedford Navigation</p> <p>Recent difficulties have been experienced in using this statutory navigation channel. Water availability siltation, weed growth all impact on the access and enjoyment of boaters.</p>	<p>We are currently updating and republishing 'The Navigation Guide to the Anglian Region'.</p>	<p>Agency in consultation with other navigation authorities and users.</p> <p>FERm</p>	R			■				<p>Guide to be collated and printed by the Agency. It will include clearer guidance on the use of the Old Bedford.</p> <p>The guide will be published this year and publicised in conjunction with user groups. It may be distributed with the 1998/9 Licence disks.</p>
		<p>To assess the effect of river management activities on the channel and connecting waters.</p> <p>For example, the impacts of cSAC designation and any alterations to the weed cutting regime on boating usage.</p>	<p>Agency, interested parties</p> <p>FERm</p>	20k			■				<p>As a statutory navigation channel the intention is to optimise the opportunities for boaters.</p> <p>The format of the review has yet to be finalised; it will require the formation of a project team and could involve a public consultation to gauge user opinions.</p> <p>Peterborough IWA have proposed the construction of a lock between Well Creek and the Old Bedford. This and other options must account for transfers and flood defence requirements.</p>
17	<p>Siltation in the Hundred Foot River and the Tidal River</p> <p>(see also Issue 2 Managing the Ouse Washes). The build up of silt downstream of the plan area, which is exacerbated by low flows has resulted in problems in the operation of the Old Bedford Sluice. Navigation is increasingly difficult between Earith and Denver and especially the Denver to Salters Lode Lock link.</p>	<p>A number of amelioration activities are being instigated:</p>	<p>Agency in consultation</p>		■	■					<p>The objective or the operational review is to find whether there is a means of maximising discharges through Denver Sluice into the Tidal River Great Ouse, thereby helping to sustain suitable river bed levels and alleviate the problems caused by siltation.</p>
		<p>a) Complete the investigation into the operation of the Denver Sluice complex.</p>	<p>(see Issue 3 above)</p>								
		<p>b) Routine local dredging of silt banks in front of Salters Lode Lock and Old Bedford Sluice.</p>		4k each time	■	■	■	■	■	■	<p>To be undertaken as and when required.</p> <p>The MLC have attempted to clear the silt upstream of Salters Lode Lock.</p>
		<p>c) The rebuilding of Welmore Lake Sluice</p>	<p>(see Issue 2 above). FERm/FDm</p>								

4.0 ACTIVITY PLANS

f) Need for Monitoring and Investigation

When a LEAP is prepared, we are tasked with assessing the state of the environment. To do this we use certain indicators of health of the environment, eg, how much nitrogen dioxide in the air, how many species of fish in a river. In some instances we do not know enough about the environment to assess its state. Under this topic, we have highlighted the need to coordinate the collection of more information on the degree of biodiversity in the Old Bedford LEAP area, more information on the amount of water flowing from the Tidal River through slackers to the Middle Level system and we have also identified the need for further water quality monitoring.

No	Issue	Activity	Responsibility	Cost (£)	97/8	98/9	99/00	00/01	01/02	Future	Comments
18	<p>Lack of biodiversity data</p> <p>There is currently a shortage of detailed conservation information on the watercourses of the Middle Level system.</p>	<p>A coordinated approach is required to compile quality data in the Area's flora and fauna. This review will help to target future resources.</p> <p>The use and effectiveness of the proposed biological records centre in Cambridgeshire should be assessed.</p>	<p>MLC conservation group, Agency, EN, wildlife trust, local authorities</p> <p><i>FERm</i></p>	R	■	■	■	■	■	■	<p>We are committed to achieving biodiversity and are closely involved in the production of species and habitat action plans. Our main contribution to this aim will be to ensure that all our river maintenance works are undertaken in a sensitive fashion.</p> <p>We undertake macroinvertebrate monitoring in the Middle Level System.</p> <p>The Agency would only be able to fund river corridor surveys on designated main rivers, to extend the information gathering to the drains in the Middle Level System an alternative source of money will need to be found.</p> <p>The records centre may be part of a lottery money bid for a national data network which is being master-minded by the Wildlife Trusts.</p>
19	<p>Lack of information on slacker flows out of the Tidal River</p> <p>This information will allow us to determine a water balance for the system and hence help us make decisions on water resources licensing.</p>	<p>Assess the possibility of monitoring slacker flows.</p>	<p>Agency, IDB, MLC</p> <p><i>WRm</i></p>	10-20k		■	■				<p>It is important that we understand the water demands for an area of such strategic importance.</p> <p>Previously raised in the WLMP.</p> <p>Feasibility study needs to precede any monitoring programme.</p>
20	<p>Lack of water quality data in the Hundred Foot River, Old Bedford and Counterdrain</p>	<p>Carry out feasibility studies for the installation of water quality monitoring stations at Welney for the Hundred Foot River and at Welches Dam for the Old Bedford/Counterdrain.</p>	Agency	80k						■	<p>The cost of installing these stations would be in the region of £45k and £35k respectively. With the proposed financial restraints, these projects will be very difficult to implement.</p>

- Not just cost to Agency

5.0 PROTECTION THROUGH PARTNERSHIP

5.0 INTRODUCTION

The aim of this section is to highlight broader, long-term issues and profile the types of partnership required to tackle them. Establishing close and responsive relationships with all sectors of the community are vital if we are to achieve integrated environmental management towards a better environment for present and future generations.

WHY PARTNERSHIP?

Partnership is a much abused term but essentially means when a number of different interests willingly come together formally or informally to achieve some common purpose in the spirit of trust and commitment. Partnerships are desirable because they provide accountability, reduced duplication between agencies, a pooling of scarce resources and joint funding. However, partnership takes time to develop. European Union (5b) funding for rural development presents an opportunity for partnership. Parts of this LEAP area are eligible for grants under this initiative.

We are well placed to influence many of the activities affecting the environment through the Environment Act 1995 and other legislation. For example, we are lead regulator for the water environment and also have regulatory powers over waste management activities. In addition, we share with local authorities the regulation of emissions to the air. However, we have little direct control over land use which is primarily the responsibility of local authorities. We will prepare LEAPs into the next millennium to demonstrate and reinforce our commitment to integrated environmental management and the partnership approach.

This section will be divided into three main parts; firstly a discussion of strategic issues followed by a discussion of Local Agenda 21 (LA21) and Education. We have striven throughout to apply these concepts to the local communities of the Old Bedford LEAP area. **We would welcome your comments on this section and in particular the key issues identified in the boxes.**

5.1 STRATEGIC ENVIRONMENTAL ISSUES

By long-term we mean well beyond the five year horizon of this plan and into the next millennium. The Agency has published 'An Environmental Strategy for the Millennium and Beyond' (September 1997) which highlights the following nine main aims for our work (and a number of key activities necessary to address them):

Addressing Climate Change
Enhancing Biodiversity
Managing Water Resources
Improving Air Quality
Managing Our Freshwater Fisheries

Delivering Integrated River-basin Management
Conserving the Land
Managing Waste
Regulating Major Industries

We have attempted to illustrate, below, how working with others can contribute to achieving these aims - giving, where possible, activities focusing on the Old Bedford LEAP itself.

Aim 1: Addressing Climate Change

Ultimately, the National Air Quality Strategy will address this issue and will involve the collaboration of the Agency, local authorities, industry and power generators. The government have made firm commitments to reduce carbon dioxide emissions.

We need to ensure that we incorporate best estimates of climate change into our estimates of flood risk, design for flood defence structures and options for water resources management. Indeed, the Agency has undertaken research as part of its commitment to the DETR's 'Agenda for Action'.

Aim 2: Improving Air Quality

We are committed to implementing the National Air Quality Strategy in collaboration with industry and local authorities.

Key issue towards 'Improving Air Quality': The need for the Agency and others to be involved in local authority air quality management fora so that data and expertise can be shared towards addressing the issues.

Aim 3: Managing Our Water Resources

We are committed to reviewing our water resources strategy during 1998 - 2000, which will consider our needs up until 2030. It will highlight the need for water companies, Office of Water Services (OFWAT) and local authorities to work together to encourage awareness on water conservation and promote efficient water use and supply.

Anglian Water applied for a drought order in late 1997 to take more water at Offord to fill reservoirs. During the inquiry held to debate this proposal, it was agreed that AWS should undertake further investigations into the effect of abstraction on the environment. This will include the Ouse Washes SPA and cSAC sites. The Habitat's Directive, under which the Ouse Washes is designated, states that new abstractions which may have an impact on a SPA or SAC need rigorous consideration. Consequently, AWS have now added the Ouse Washes to the list of sites being put forward in AMP3 for potential water company funding.

5.0 PROTECTION THROUGH PARTNERSHIP

Key issue towards 'Managing Our Water Resources': We need to ensure that LEAPs detail all water quality and resources concerns so that they effectively inform the water companies' asset management planning process. The water companies may fund improvement works if it can be demonstrated that they have contributed to certain environmental problems. This is a mechanism for real environmental improvement whereby OFWAT, water companies and the Agency determine the priorities for action and then OFWAT agree an appropriate level of customer charging to fund them.

Key issue towards 'Managing Our Water Resources': Concerns over maintaining farming in the longer-term.

Farming dominates the economy in this locality which reflects how man drained the Fens to create some of the most productive soils in the UK for vegetables and cereals.

Production is now geared towards the demands of the marketplace - high quality and year round produce. This has meant increased reliance on irrigation. Despite current water demands being met, it is unlikely that any increased demands during droughts or in the future would be met. We would like to undertake a review of water resources (from the River Nene) in the Middle Level some time before all the temporary spray-irrigation licences expire in 2003. We and agricultural organizations will continue to advise on water efficient irrigation practices.

In light of the above, we have seen the construction of winter storage reservoirs to make supplies more reliable. Indeed, The MLC are looking into the feasibility of constructing a large reservoir in the Middle Level with a number of partners including the Agency, IDBs and local farmers. Eventually, we will need to be able to calculate the impact of such reservoirs on the overall water resource.

The management of the system under these circumstances has required a partnership between the MLC, IDBs and the Agency. We would like consideration of more frequent contact between our organizations, building on the good liaison that already takes place.

Studies have shown that the peat soils are shrinking. Fenlands are also subject to soil blow which can further down-grade the land. Future farming policy needs to ensure that water and soil resources are not exhausted and that consumers are educated as to the impact of food production to maintain farming and the local economy.

Aim 4: Enhancing Biodiversity

This is an aspiration that no single individual or organization can bring about. We are committed to playing our part in devising Local Biodiversity Action Plans (BAPs, see below).

Key issue towards 'Enhancing Biodiversity': Need to ensure that the targets agreed in BAPs become incorporated into the routine work of partner organizations so that real environmental improvements can be demonstrated.

The benefits of the partnership approach can be demonstrated by the progress of the Ouse Washes Management Strategy which is being progressed by a committee of interested organizations under the chairmanship of EN. As well as the Ouse Washes, Woodwalton Fen SSSI has undergone the water level management planning process whereby EN, the Agency, MLC and others are working together to ensure these valuable wetland plant and animal communities are sustained.

Aim 5: Managing Our Freshwater Fisheries

We will strive to maintain the good quality of the Middle Level system's fisheries by effective regulation and enforcement. Within the Ouse Washes, there is a continual need to balance the needs of anglers and commercial eel fishermen with the conservation objectives of the area. We measure our success by a commitment to a five year rolling programme of survey work. We are also committed to protect the spined loach populations living in local watercourses. This process will only succeed with the support and effort of all parties involved.



Releasing Tench into the Old Bedford at Welney

Aim 6: Delivering Integrated River Basin Management

Integrated river basin management is the need to look at the river and corridor habitats as a whole, through an integrated approach, rather than looking at individual uses or users in isolation, with the aim of balancing conflicting needs.

This aim is both intellectually and practically challenging to fulfil. However, our success is wholly dependant on the influence of all river users and riparian owners.

The European Commission have issued a proposal for a Water Framework Directive, which the UK (currently holding the EU Presidency) are keen to progress and adopt. This important legislation, when it comes into force, will affect both water quality and quantity. It has been developed to reform Directives already in place and cover areas not previously legislated for. The aims of this Directive are:

- to secure sustainable water use into the 21st century;
- to promote the 'polluter pays' ethic; and
- to provide a coherent structure for water policy.

LEAPs are an important tool in this process as they facilitate open consultation and coordinated management for each river basin.

5.0 PROTECTION THROUGH PARTNERSHIP

Examples of long-term initiatives include increasing the amount of bankside buffer strips. These areas of wilderness can not only enhance habitat but can also prevent pollution from the land reaching the river. The issue in this case is the need to identify practical steps to implement this policy.

Key issue towards 'Delivering Integrated River Basin Management': The need to build long-term plans with local authorities and Middle Level Commissioners to provide a sustainable navigation and other recreation in Old Bedford area. The Fenland Countryside Project led by Cambs County Council in partnership with a number of other parties is one such initiative. This aims to develop a strategy for countryside recreation and access. Funding has been explored and opportunities are being sought through local consultation.

Aim 7: Conserving the Land

LAND USE PLANNING

Land use is the single most important influence on the environment and land use change has important implications for the environment which can be both

positive and negative. The control of land use change is primarily the responsibility of LPAs. Their Development Plans (structure and local plans) provide a framework for land use change and are key considerations in the determination of planning applications. We have a responsibility to protect and enhance the environment, however, we have limited control over the way that land is developed. Therefore, we have to work closely with the LPAs in order to achieve our environmental aims. This is of particular relevance to land use planning in Cambridgeshire as it is the fastest growing county in the UK.

The policies in these plans will guide the way that land is developed. We advise planning authorities to help them to implement plans which protect the environment from harmful development. We reinforce these policies, where possible, when we comment (as a statutory consultee) on planning matters. Those Plans covering the Old Bedford LEAP are given in Table 2 below and shown on map 3.

It is evident from the table below that the development plans are at various stages of review. We welcome the opportunity of involvement at the earliest possible stage.

Structure Plans	Current Status
Cambridgeshire County	Adopted 1995, Monitoring Views produced 1996 and 1997
Norfolk County	Adopted 1993, review to 2011 in progress - consultation draft (Jan 97)
Minerals/Waste Plans	Current Status
Although LEAPs can play a role in informing local authorities of local waste management practices and pressures they will not be driving our strategic waste planning work or seeking to identify locations for waste management facilities. We will be assisting local authorities and regional planning conferences by producing Strategic Waste Management Assessments and local waste management statements for development planning purposes.	
Aggregates Local Plan- Cambridgeshire	Adopted August 1991. The Plan will be reviewed after the 1997 Minerals Survey is produced.
Waste Local Plan - Cambridgeshire	Issues report August 1997.
Minerals Local Plan - Norfolk	Adopted 1996. Published June 1997.
Waste Local Plan - Norfolk	Deposit draft published August 1997.
Local Plans	Current Status
East Cambridgeshire	Adopted December 1993, review under way, deposit draft plan published September 1997.
Fenland	Adopted August 1993.
Huntingdonshire	Adopted December 1995.
Kings Lynn and West Norfolk	Proposed modifications September 1997

5.0 PROTECTION THROUGH PARTNERSHIP

LOCAL PLANNING GUIDANCE

The National Rivers Authority (NRA), (one of our predecessors) produced a set of statements in a document 'Guidance Notes for Local Planning Authorities on the Methods of Protecting the Water Environment through Development Plans' (1994) which provides a general guide to the policies we believe should be included and why they are important. This guidance will be updated shortly to cover all our functions. We have also produced a document entitled 'Environment Agency - Liaison with Local Planning Authorities' (March 1997) which explains our role and contribution to the land use planning system and is intended to help local authority planners in their day to day contact with us.

We take a proactive approach to our involvement in the planning system - as well as commenting on regional guidance, structure and local plans, we also consider planning applications in depth.

We are required by Section 105 of the Water Resources Act 1991 and Circular 30/92 'Development and Flood Risk' to carry out a survey of flood defences within our area. This includes determining the 1:100 year return period floodplain level. A pilot study to determine how best this could be achieved is currently under way. However, the entire project will take 10-15 years to complete. The results of the survey will ultimately be available to local authorities to aid the production of their development plans. Until this survey information is available, existing flood level records should continue to be used to help guide development.

The planning system generally, and the use of planning conditions in particular, should not duplicate the controls imposed by the pollution control bodies, eg, the Agency and local authority Environmental Health. Clarification is provided in Planning Policy Guidance Note 23 Planning and Pollution Control. Our preliminary thoughts on the constraints to development in the Old Bedford LEAP area are given in the Consultation Report, on a parish by parish basis.

Building a relationship between Development Plans and LEAPs is important to us. Although LEAPs are non-statutory plans, they can be useful as advice or guidance to LPAs in preparation of their Development Plans and in reaching decisions on planning applications. It is important that we work closely with LPAs in the preparation of LEAPs and seek to ensure the plans are widely recognised.

We welcome feedback from local authorities on how this relationship can be strengthened to fulfil this aspiration.

A critical long-term issue is the need to respond to government guidance and allocate some 40,000 houses in Cambridgeshire - a number of which will be accommodated in this LEAP area. Cambridgeshire County Council has begun a study on how such development could be directed and we have been involved in

preliminary discussions. The key long term considerations include the availability of water supply, sewage disposal and consideration of flood risk and surface water management.

Key issue towards 'Conserving the Land' and 'Managing Our Water Resources': There is a need to ensure that the ability to supply water to new developments is assessed before a decision on the location is made. This would best be facilitated by joint discussions between planners, water companies and ourselves at the earliest possible stage.

Another issue with long-term implications is the management of contaminated land and 'brownfield' developments. In this case environmental protection can only be secured through the successful collaboration between local authorities, the Agency, owners and developers.

Aim 8: Managing Waste

Key issue towards 'Managing Waste': The implementation of the Government's strategy for sustainable waste management.

The thrust of the strategy is for more waste management to be undertaken at the top of the 'waste hierarchy' namely:



- Reduction/prevention of waste.
- Re-use of waste.
- Recovery via recycling, composting and energy production.
- Safe disposal to minimize the risk of pollution and harm to health.

The best option is not to produce waste in the first place and we all have a role to play in reducing the amount of waste produced. Therefore, we are keen to stage waste minimisation awareness campaigns with green business clubs, county 'Business Link' groups, local authorities, etc.



Recycling waste

5.0 PROTECTION THROUGH PARTNERSHIP

The statutory waste management strategy for England and Wales will be prepared by the DETR. To do this, we will need to complete a national waste survey by 1999. These will assist local authorities to prepare recycling and waste local plans.

The landfill tax is generating finances which are being fed into environmental schemes through the Environmental Trusts initiative. It is hoped that this will fund habitat creation, recreation and education projects.

Aim 9: Regulating Major Industries

The effective regulation of industry and the activities of water companies such as Anglian Water can ensure that the whole environment can be protected from pollution whilst respecting economic and employment considerations. We can do this backed by powerful legislation but ultimately success is achieved by developing excellent relationships with industry and also by the will of the industries themselves to instigate environmental improvements. For example, major supermarkets now implement an environmental policy (which we may be able to influence in the future).

5.2 LOCAL AGENDA 21 AND BIODIVERSITY ACTION PLANS

Local Agenda 21

Agenda 21 came out of the 1992 Earth Summit at Rio de Janeiro and the concept is to set an agenda for action for the 21st century at a local level. It emphasises the need to encourage local action to implement the aims of global environmental policy. In other words 'think globally, act locally'. This was one of a number of agreements signed by some 150 countries which include conventions on climate change and biodiversity. 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.

In response to the Earth Summit, the government has produced a number of strategy documents. These include the 'UK Sustainable Development Strategy' and more recently it has published 'Indicators of Sustainable Development in the United Kingdom'. This sets out a comprehensive list of aspects of sustainable development which should be measured and identifies indicators for each.

Local authorities are seen to be the focus of promoting and encouraging local community action. Since the Earth Summit, local authorities have been charged with producing a LA21 for their area which aims to encourage wider access to information, greater community participation in decision making and the adoption of sustainable development principles. We support that approach by providing information, expertise and support. Indeed, an Agency LA21 Information Pack will be launched shortly.

At a local level, most councils are working with communities, employers and industry to produce their own Environmental Reports/Action Plans and subsequently their own LA21 programmes. For example:

- Cambridgeshire County Council's Environment 2000 - a Strategy for Action (July 1997) which includes a review of the County's State of the Environment report and LEAPs;
- Within the 'Old Bedford' area, both Cambridgeshire and Norfolk County Councils have established LA21 fora on which we are represented; and,
- King's Lynn and West Norfolk Borough Council have established an environmental forum which has produced a state of the environment report. Fenland District Council have recently established an environmental forum while Huntingdonshire and East Cambridgeshire have a range of initiatives underway.

Key issue towards achieving a 'LA21': The need to determine with local authorities how we can appropriately link the issues being generated by LA21 and the Agency's routine work including LEAPs. We are supporting the initiative but the long-term implications and resource needs have not yet been considered.

Biodiversity Action Plans

The UK Action Plan published in 1994 sets out the broad strategy for conserving and enhancing wild species and wildlife habitats in the UK for the next 20 years. The stated overall goal is 'to conserve and enhance biological diversity within the UK and to contribute to the conservation of global biodiversity'. Biodiversity will be a key indicator of the successful implementation of sustainable development in the plan area.

We are part of the Anglian Regional Biodiversity Group aimed at translating this national initiative into a regional context. At a local level, local authorities and environmental organisations, including the Agency, are compiling Biodiversity Action Plans (BAPs) which will include targets for specific habitats and species (many of which are relevant to this LEAP area such as wetlands and aquatic species, eg, reedbeds, otter and freshwater mussels).

It is crucial to the success of the BAP process that a comprehensive ownership is achieved in a realistic timescale. The Action Plans should not only be the vision of participating organisations but be shared by others throughout each county. Plans will not be achieved unless landowners, farmers and managers are involved in the decision-making process so wider community involvement is encouraged.

5.0 PROTECTION THROUGH PARTNERSHIP

Table 3: Status of Biodiversity Action Planning in the Old Bedford LEAP Area

County	Partners	Document	Due Date	Themes/Habitats to be considered
Cambridgeshire	Wildlife Trusts, Local Authorities, Agency, EN, RSPB	Cambridgeshire's Biodiversity: A Framework for Action	1997	Rivers Wetlands Urban Woodland Grassland Arable Farmland
Norfolk	Wildlife Trusts, Norfolk County Council, Agency, EN, RSPB	Action Plans for priority species and habitats completed	1997	Cereal Field Margins Ancient Species-rich Hedgerows, Coastal and Floodplain Grazing Marsh Lowland Heathland, Fens Reedbeds, Chalk Rivers, Saline Lagoons, Seagrass Beds.

5.3 EDUCATION AND AWARENESS

One of our key objectives for environmental protection and improvement is education. Damage is often caused, not through malicious intent to harm the environment but through a lack of awareness. Therefore, we feel we need to have a greater involvement in education at all levels. Our education strategy 'Green Shoots' (1997) which considers education into the next century, outlines the following goals:

- to help educate young people through teaching aids and other initiatives;
- to improve understanding of environmental issues, through links with education, work placements and an awards scheme;
- to work with industry and produce marketing campaigns to promote prevention of pollution rather than its remediation;

- to foster public awareness of environmental issues to encourage responsibility for the environment and its challenges; and,
- to build on established and create new international relationships to further sustainable development.

A range of education material is already available on request.

We perceive education to include all aspects of our society not just education through schools and colleges. We will be one of a number of organisations working in this realm and we are open to suggestions for joint approaches. We hope to see environmental topics dovetail into the national curriculum and are committed to provide information to 'A' level and university students. We welcome any feedback on how the Agency could get more involved within the Old Bedford LEAP area.

6.0 FUTURE REVIEW and MONITORING

The Environment Agency will be jointly responsible, with other identified organisations and individuals, for implementing this Action Plan. Progress will be monitored and normally reported annually. These Annual Reviews will examine the need to update the Plan in the light of local change. The period between major revisions will normally be five years.

Thank you for reading this report. We welcome your feedback on this plan.

APPENDIX I: SUMMARY OF RESPONSES

A full report of the consultation responses received and an erratum of the Consultation Report are given in the 'Statement of Consultation Responses' (February 1998) - which is available on request.

Consultee Date of Letter	Comments Made
A J Chambers Environment Agency Liaison Rep. Inland Waterways Association (IWA) (21st June 1997)	Review of Old Bedford navigation should confirm the right of navigation. IWA suggest a lock between the Old Bedford and Well Creek at the Tidal Doors/Salters Lode to overcome problems of siltation/navigation.
Barrie Rickards AEG Member Emmanuel College Cambridge (12th July 1997)	Spined loach - this is a waste of time as already abundant. Weed control on Old Bedford would conflict with the preferences of spined loach. Old Bedford/Counterdrain cannot be deepened - therefore banks would have to be raised. Clear passage for sea trout along the River Delph.
John Norris IWA (14th July 1997)	Tidal River Siltation Strategy. Need to balance winter storage against the need to flush silt. Prefer the first three options to combat the problem of siltation. Limit summer flooding on the Ouse Washes by diverting water into the Old West and renewing Welmore Lake Sluice. Flexible approach to control weed growth in the Old Bedford. Review of Old Bedford navigation should confirm the right of navigation.
Colin T Dodd Secretary Histon & District Angling Society (25th July 1997)	Welcome controlled flow on the Old West. Seek assurance that a higher rate of summer flow would not become common as it can make the river unfishable. Summer Draw Off level at Earith Sluice to be raised. Welcome more water in the river but would not be impaired by flooding. Welcome control of weed growth on the Counterdrain. Welcome improvement to Somersham STW as discharge is probably increasing weed growth and limiting fish populations. Any water transferred to the Counterdrain at Black Sluice would be beneficial as long as fish movement to the Old Bedford is restricted.
A T Goodge Engineer Littleport & Downham IDB (30th July 1997)	The three existing inlets from the Hundred Foot River are already barely adequate to maintain water levels and so raising of levels to the inlets will result in restrictions on irrigation licences. The board has already set a high cessation level.
Mike Murray Environmental Protection Division MAFF (5th August 1997)	No discussion of specific issues. General comments on the contents of agricultural/soil sections.
IAD Smith Clerk to the Commissioners Middle Level Commissioners (6th August 1997)	Ouse Washes (conservation) - Primary function of these watercourses is for flood defence. Siltation made worse by the proposed changes to the Essex transfer system. Swavesey IDB among others have already objected to any proposal to raise the Earith Draw Mark. Higher water levels will also occur upstream if this is to be implemented. IDBs should be involved in any review of management rules. The Commissioners and IDBs do not accept the issue regarding unlicensed slacker abstraction. Any agreement with EN to control weed growth should ensure that the watercourse is able to fulfil its land drainage/flood defence functions. Works should be assessed through liaison. The Commissioners and Boards are satisfied that traditional conservation management practices already create, support and encourage riverine habitats. Statement that there is a threshold beyond which further winter storage will not be acceptable contrasts with the proposed increased Essex transfer. Quality of water for spray irrigation - monitoring of watercourses, specifically at abstraction points, would be beneficial. The Commissioners would appreciate more information on the proposals to improve the sewerage system in March. The Commissioners have previously commented on designations of eutrophic sensitive areas and these comments should be taken on board. Unsewered villages are of particular concern to Churchfield and Plawfield IDB. Capital scheme by AWS welcomed, onus should be on householders who have made illegal connections. Agree that a review of the Old Bedford navigation is needed. Salinity problems for the Hundred Foot IDB. Procedures to make Big Eye fully operational. Salters Lode lock and other IDB outfalls have problems with siltation, causing flood defence and navigation problems. Siltation alleviation must begin soon, hoped that new Welmore Lake Sluice will help. Angling value of the area has been lessened by availability of ponds and pools where year round fishing is encouraged. Fish surveys would be beneficial. Lack of biodiversity data associated with species distribution and habitat types is not an issue as existing management practices have created and enhanced habitats.

APPENDIX I: SUMMARY OF RESPONSES

Consultee Date of Letter	Comments Made
Janet Martin Environment Quality Officer Cambridgeshire County Council (15th August 1997)	<p>Support option to review consents on/near cSACs.</p> <p>Supported actions to ensure viability to limit summer flooding of the Ouse Washes.</p> <p>Welcome opportunities to increase access to the Ouse Washes.</p> <p>Scope for habitat protection and development in the Ouse Washes and Middle Level should be done within the context of LBAPs and the Wet Fens for the Future Project.</p> <p>There should be a review of winter and summer water resources for agriculture. Concerns regarding winter storage reservoirs undermining Minerals and Waste planning and impacts on the fenland landscape. Potential for habitat creation should be incorporated at design stage.</p> <p>Review of water resources licensing system.</p> <p>Should mention planning policies regarding the enlargement of March landfill site.</p> <p>Support actions to reduce the pollution risk from tyre dump.</p> <p>The recreation section should be expanded to include recreation related to the historic development of the Fens and Public Rights of Way. It should also link with the Wet Fens for the Future Project, the Fenland Countryside Project and the Fens Tourism Initiative.</p> <p>Agency would be failing in its duty if no action taken to reduce phosphate and eutrophication.</p> <p>Welcome the contribution from the Agency regarding biodiversity data.</p> <p>Implications of water level management on Archaeological sites needs to be considered in particular the effect of IDBs.</p>
Tim Cox Centre Manager Wildfowl & Wetlands Trust (16th August 1997)	<p>Welcomes the SAC designation of the Old Bedford and wishes to be included as a responsible organisation.</p> <p>Would like to be consulted prior to the use of weed rake machine to control weed growth.</p> <p>Wish to discourage 'access' on the Washes which might encourage four wheel drive traffic.</p>
G Smith Hon Area Secretary The Ramblers Association (20th August 1997)	<p>Supportive statements on objectives for waste management and its contribution to sustainable development, and on biodiversity and nature conservation objectives for habitat protection and development.</p>
Tony Harrison IWA (20th August 1997)	<p>Concerns over the designation of cSAC status and review of consents and effect on navigation.</p> <p>The Counterdrain Project to maintain flood defence capacity should consider pumping and siltation. Strongly support the Tidal River Siltation Strategy in the draining of the Ouse Washes after flooding. Do not support the 'do nothing' option.</p> <p>Support the dredging and Draw Mark options to limit summer flooding to Ouse Washes.</p> <p>Support cills as most effective option for uncontrolled slacker abstraction. Voluntary cessation by IDBs can be effective.</p>
R J H Probyn Planning Policy Manager Huntingdon District Council (20th August 1997)	<p>Will the designation of cSAC sites affect the present management of Woodwalton Fen ?</p> <p>Habitat protection and development should be co-ordinated as part of the LBAP process.</p> <p>Issue of spray irrigation needs to be more rigorously addressed. Caution should be exercised in the promotion of winter storage reservoirs, long-term effects unknown.</p> <p>No indication given as to the ability of STWs to cope with any future development.</p> <p>Document looks at the adverse effects of eutrophication does not identify the sources of pollution. Should consider options to reduce nutrient levels as they are a threat to biodiversity.</p> <p>Welcome any action to improve navigation on the Old Bedford along with improving possibilities for water recreation and tourism.</p> <p>Need for Biological Record Centre for Cambridgeshire for biodiversity data. Should be co-ordinated through the LBAP process.</p>
Pat Copeman Clerk to the Parish Council Welney Parish Council (21st August 1997)	<p>Concerned that cSAC designation will adversely impact upon access and recreation.</p> <p>'Voluntary' control on slacker abstraction has been shown not to work, should legislate.</p> <p>Suggest weed removal might be done in sections at different time of the year/frequencies.</p> <p>Comments on access/recreation regarding vehicles, public paths, car park and skating.</p> <p>Comment on Causeway flooding and new road feasibility study.</p> <p>Tyre dump should be dealt with comprehensively and soon.</p> <p>Problems in the unsewered villages of Outwell and Upwell are not unique, there are similar problems in other smaller villages.</p> <p>Support the implementation of the Siltation Study.</p> <p>Could Welney be proposed as a suitable site for the Wet Fens for the Future Project ?</p>
Paul Woodcock Environmental Protection Manager Anglian Water Services Ltd (21st August 1997)	<p>Support better control of abstraction through the licencing of slackers.</p> <p>AWS cannot fund all requested improvement to STWs due to OFWAT limitations.</p> <p>AMP2 programmes already addressing problems of CSOs in March.</p> <p>Doubtful what benefits designation as Eutrophic Sensitive Area would bring as only 3 STWs exceed the 10,000 pe criteria for UWWTD sensitive areas.</p> <p>Causes of failure to meet water quality objectives (ammonia) is insufficiently understood.</p> <p>Unsewered villages being addressed under the UWWTD.</p> <p>Insignificant description of the historical transfer of water from the Nene into the Middle Level.</p> <p>Agency should indicate which schemes are of sufficient priority to be included in AMP3.</p>

APPENDIX I: SUMMARY OF RESPONSES

Consultee Date of Letter	Comments Made
Richard Hall Conservation Officer English Nature (21st August 1997)	<p>Comments regarding cSACs. Salinity monitoring important, all flora and fauna sensitive. Water levels must not compromise the cSAC/SPA status of the Old Bedford and Ouse Washes. Support cills for controlling slacker abstraction. Voluntary cessation by IDBs can be effective. Formal endorsement of WLMP would reinforce voluntary measures.</p> <p>EN prepared to consider changes to the present weed cutting regime if no detrimental effect. Barley straw trials should be monitored for possible future application.</p> <p>Damage to Cradge Bank due to 'access' to Ouse Washes.</p> <p>It is hoped that the Agency will become involved in all local projects concerned with biodiversity and nature conservation, eg, Wet Fens for the Future.</p> <p>Redevelopment of Causeway at Welney will need to be considered in light of conservation status.</p> <p>Any review of water resources and winter abstraction needs to consider current/future wetlands.</p> <p>Support Agency's wish to address problems of siltation, but studies need to be coordinated.</p> <p>Agency data on fish stocks should be made available to others and should contribute towards future biological records centre in Cambridgeshire.</p>
Will Woodrow Conservation Officer RSPB (25th August 1997)	<p>Support cSAC and conservation status of the spined loach. A full EA should be carried out as part of any examination of the current management of the Ouse Washes and potential changes.</p> <p>Draining of the Ouse Washes after floods, silt removal from the Tidal River and limitation of summer flooding are critical conservation issues for the breeding success of nationally important bird populations and important steps towards the Agency's biodiversity objectives.</p> <p>Support the need for better salinity monitoring. Support measure to maintain conservation value by avoiding excessive drops in water levels in the Old Bedford.</p> <p>Works to curb weed growth must be carried out without any adverse effect on conservation</p> <p>Support the enforcement of the Ouse Washes Management Strategy guidelines to address the issue of access.</p> <p>Should be a clear commitment to habitat creation and some attempt to quantify the benefits.</p> <p>Support positive actions to review uncontrolled slacker abstraction. Support a review of water resources for agriculture. Encourage winter storage reservoirs, although not much potential for habitat creation. Encourage best practice of water application. Contingency amount of water should be 'reserved' for future wetland creation. Need to reduce summer abstraction and benefit conservation. Support for protection of groundwater from pollution.</p> <p>Tyres should be removed from dump.</p> <p>Supports measures to ensure that legal water quality requirements are achieved and improved.</p> <p>Concerned about the effects of deteriorating water quality on the Ouse Washes and support measure to reduce and monitor eutrophication (which should include impacts on conservation).</p> <p>Support options to protect water quality in unsewered villages.</p> <p>Review of navigation on the Old Bedford must assess the conservation impact of the options.</p> <p>Compliance with the EU Birds and Habitats Directives and protection of SPAs and SACs should take priority when addressing the problem of siltation.</p> <p>Welcomes research into the fishery. Supports the collection of biodiversity data.</p>
Christopher Hodson Planning Policy Manager Fenland District Council (26th August 1997)	<p>Aware of the problems with CSOs in March and encouraged that AWS has begun works.</p> <p>Promotes the use of the Nene-Ouse link for recreational purposes, but also supports other navigable stretches of water. Would welcome measures to improve the Forty Foot navigation and to make access possible through the Old Bedford Sluice.</p>
Paul Hammett Senior Technical Advisor NFU (26th August 1997)	<p>Review of consents/licences issued by the Agency premature until SAC status has been attained.</p> <p>Support completion of the Counterdrain Project.</p> <p>Welcome plans to implement a Tidal River Siltation Strategy.</p> <p>No problems with the voluntary control on slacker abstraction.</p> <p>Welcome inclusion of agricultural issue in LEAP. Support promotion of winter storage reservoirs.</p>
G H Clemmow Chief Engineer Middle Level Commissioners (26th August 1997)	<p>The Upper Nene has been designated a Eutrophic Sensitive Area under the UWWTD.</p> <p>Lower phosphate will reduce excessive algal growth. The Middle Level is also being proposed as a sensitive area.</p> <p>Subsequent reviews should report on the efforts to alleviate siltation and salinity.</p>
David Noble Manea & Welney Drainage Commissioners (27th August 1997)	<p>Rarity of the spined loach should be investigated before reviewing licencing/consents on cSAC.</p> <p>The maintenance of the flood defence capacity in the Old Bedford/Counterdrain/Cranbrook system is of paramount importance.</p> <p>Support the construction of a new sluice and pumping station at Welmore Lake to facilitate the effective draining of the Ouse Washes after floods.</p> <p>Raising the Earith Draw Mark to limit summer flooding to the Ouse Washes will jeopardise upstream interests. Dredging may be necessary, but is inhibited by conservation concerns.</p> <p>Would oppose the licencing of slacker abstractions.</p> <p>EN should reconsider weed cutting regime.</p> <p>A more robust vegetation management regime must be implemented to secure the integrity of the Cradge Bank for flood defence purposes.</p> <p>Support for habitat protection and creation within the confines of flood defence requirements.</p> <p>Water resources should be prioritised. Agency should encourage research into best practice for irrigation.</p> <p>Agency must ensure STW compliance with discharge conditions and review those conditions against environmental considerations.</p> <p>It is hoped that studies into the problems of siltation in the Hundred Foot River will lead to desirable improvements.</p>

APPENDIX II: ABBREVIATIONS AND GLOSSARY

ABBREVIATIONS

AMP2/3	Asset Management Plan 2/3
AOD	Above Ordnance Datum
AWS	Anglian Water Services Ltd.
BOD	Biochemical Oxygen Demand
cSAC	Candidate Special Area of Conservation
DO	Dissolved Oxygen
EN	English Nature
EPA90	Environmental Protection Act 1990
ha	Hectare
IDB	Internal Drainage Board
IPC	Integrated Pollution Control
LA21	Local Agenda 21
MAFF	Ministry of Agriculture Fisheries & Food
MLC	Middle Level Commissioners
NRA	National Rivers Authority
NSA	Nitrate Sensitive Area
NVZ	Nitrate Vulnerable Zone
OFWAT	Office of Water Services
REC	River Ecosystem Class
RSPB	Royal Society for the Protection of Birds
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STW	Sewage Treatment Works
UWWTD	Urban Wastewater Treatment Directive
WQO	Water Quality Objectives

GLOSSARY

Agenda 21	A comprehensive programme of worldwide action to achieve a more sustainable pattern of development for the next century. UK Government adopted the declaration at the UN Conference on Environment and Development (the Earth Summit) held in Rio de Janeiro in 1992.
Alluvial	Sedimentary deposits resulting from the action of rivers. Typically fine grained material carried by the river and deposited in areas such as flood plains.
Above Ordnance Datum	Land levels are measured relative to the average sea level at Newlyn in Cornwall. This average level is referred to as 'Ordnance Datum'. Contours on Ordnance Survey maps of the UK show heights in metres above Ordnance Datum.
Aquifer	A water bearing stratum situated below ground level. The water contained in aquifers is known as groundwater.
Biochemical Oxygen Demand	A standard test which measures over five days the amount of oxygen taken up by aerobic bacteria to oxidise organic (and some inorganic) matter.
Biodiversity	Diversity of biological life, the number of species present.
Biomass	Total quantity or weight of organisms in a given area or volume, eg, fish biomass is measured as grammes per square metre (g/m ²).
Catchment	The total area from which a single river system collects surface run-off.
Coarse Fish	Freshwater fish other than salmon and trout.
Consent (Discharge)	A statutory document issued by the Agency. It can authorize entry and indicate any limits and conditions on the discharge of an effluent to a Controlled Water.
Consent (Land drainage)	An approval for specified structural works in areas under Agency control.

APPENDIX II: ABBREVIATIONS AND GLOSSARY

Controlled Waste	Industrial, household and commercial waste, as defined in UK legislation. Controlled waste specifically excludes mine and quarry waste, wastes from premises used for agriculture, some sewage sludge and radioactive waste.	Integrated Pollution Control	An approach to pollution control in the UK which recognises the need to look at the environment as a whole, so that solutions to particular pollution problems take account of potential effects upon all environmental media.
Controlled Waters	All rivers, canals, lakes, groundwaters, estuaries and coastal waters to three nautical miles from the shore, including the bed and channel which may for the time being be dry.	Internal Drainage Boards	Authorities responsible for dealing with land drainage within a district. They are primarily concerned with agricultural land drainage but also may be involved with water supply to their district for agricultural purposes.
Discharge capacity	The volume of water per unit of time able to be conveyed by a channel or pipe.	Leachate	Liquor formed by the act of leaching.
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 the water. It is used to classify waters.	Limited Rural Growth Settlements	Settlement able to accept additional small scale development only, due to the need and desire to retain an identifiable settlement hierarchy
District Local Plans	Statutory documents produced by District or Borough Councils to implement the development strategy set out in County Structure Plans. Specific land use allocations are identified.	Macrophytes	Any plant observed by the naked eye and nearly always identifiable. This definition includes all higher aquatic plants, vascular cryptogams and bryophytes, together with groups of algae which can be seen to be composed predominantly of a single species.
Drift	Transported superficial deposits, especially those transported by ice.	Main River	The watercourse shown on the statutory 'Main River Maps' held by the Agency and MAFF. The Agency has permissive powers to carry out works of maintenance and improvement on these rivers.
Effluent	Liquid waste from industry, agriculture or sewage treatment plants.	OFWAT	Office of Water Industry's Financial Regulator of Water Service Companies.
Emergency Overflow	Discharge of crude sewage from sewerage system because of mechanical or electrical breakdown of pumps.	Ramsar	Wetland site of International Importance that is designated under the Ramsar* convention (*a town in Iran where the international convention originally agreed in 1975 to stem the progressive encroachment on, and loss of, wetland).
Eutrophic	A description of water which is rich in nutrients. At worst, such waters are sometimes beset with unsightly growths of algae.	Raw Water	Water in its natural state; before treatment.
Floodplain	This includes all land adjacent to a watercourse over which water flows or would flow but for flood defences in times of flood.	Riparian	Owner of riverbank and/or land adjacent to a river. Normally owns river bed and rights to mid-line of channel.
Fluvial	Relating to the freshwater river.	River Corridor	The continuous area of river, river banks and immediately adjacent land alongside a river and its tributaries.
In river needs	The totality of requirements for the water environment and effluent dilution before abstraction is taken into account.		

APPENDIX II: ABBREVIATIONS AND GLOSSARY

Special Areas of Conservation	Areas (land and sea) that contribute most to the survival of species and habitats listed in the Habitats Directive.	S105 Surveys	Section 105 of the Water Resources Act 1991 allows for Standards of Service, Assets and Flood Risk Surveys.
Siltation	At low velocities water will deposit the material being carried in suspension. The slower the velocity the finer the material deposited. A deposit of clays and silt is very difficult to remove naturally as it requires turbulent and high velocities.	Water Quality Objectives	Water quality targets to secure specific formal minimum quality standards for specific stretches of water by given dates. A new component of these is introduced by 'The Surface Waters (River Ecosystem Classification) Regulations 1994'; a classification scheme to be applied by Agency to the rivers and watercourses of England and Wales. Other existing standards operate already to give effect to various EC Directives for water quality.
Site of Special Scientific Interest	A site given a statutory designation by English Nature because it is particularly important, on account of its nature conservation value.	Water Table	Top surface of the saturated zone within the aquifer.
Special Protection Area	Statutory protected habitats for wild birds under EC Regulations.	Wetland	An area of low lying land where the water table is at or near the surface for most of the time, leading to characteristic habitats.
Structure Plans	Statutory documents produced by County Councils outlining their strategy for development over a 10-15 year time scale.	Winter Storage Reservoir	Reservoirs built by farmers to store water during the winter months when it is plentiful for re-use during the summer.
Surface Water	Water collecting on and running off the surface of the ground.		
Sustainable Development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.		

APPENDIX III: AEG SUB-GROUP AND PROJECT TEAM DETAILS

Project Team

Nigel Fawthrop: Area Customer Services Manager (Project Leader)
Michelle Doyle: Team Leader - Development Planning and LEAPs (Plan Coordinator)
Alan Rich: Team Leader - Planning Liaison
Gary Watkins: Team Leader - Tactical Planning
Clive Hughes: Environmental Protection Officer
Gareth Lewis: Pollution Inspector
Roger Handford: Team Leader - Fisheries and Recreation
Julie Barker: Water Resources Engineer
Tim Ettrick: Team Leader - Hydrology
Neville Bussingham: Flood Defence Engineer

Representatives of the Great Ouse Area Environment Group (AEG)

Colin Clare (Chairman of AEG)
Gary Mortimer
Steven Hargreaves
Michael Tassell
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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.

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0645 333 111

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

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