local environment agency plan

BEDFORD OUSE (Lower Reaches) LEAP

FIRST ANNUAL REVIEW

MAY 2001

ENVIRONMENT AGENCY

Bedford Ouse
(Lower Reaches) LEAP
First Annual Review

Map 1

ENVIRONMENT AGENCY

Environment Agency Regions

Anglian Region

Central Area

Bedford Ouse (Lower Reaches) Local Environment Agency Plan

Bedford Ouse Area Location

KEY

- Plan boundary
- Main river
- Built up area
- Bedford Ouse Plan Area
- Regional Boundary
- LEAP boundary

NOTE:

BEDFORD OUSE (Lower Reaches) LEAP – FIRST ANNUAL REVIEW

Following the General Election in June 2001, some of the responsibilities of the Department of the Environment, Transport and the Regions (DETR) and those of the Ministry of Agriculture, Fisheries and Food (MAFF) were transferred to the newly created Department of the Environment, Food and Rural Affairs (DEFRA). References in this report to DETR and MAFF should therefore be taken to mean DEFRA.

Examples of recreational enhancements in the Bedford Ouse (Lower Reaches) LEAP Area

Three new fishing platforms on the Bedford Ouse at Wyboston Leisure Park allow disabled anglers to fish safely from the bank

Agency-owned fish rearing ponds on the Ouse Valley Way at Brampton have been converted into a new conservation and amenity area for passing walkers

VISION
(Taken from the LEAP)

Most societies want to achieve economic development to secure a better quality of life, now and in the future, while still protecting 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. We are working towards making this concept a reality.

We will undertake our activities, with others, to achieve protection and enhancement of the environment as a whole. Where possible we will take into account the effects of activities on water, air and land.

In general and in the long-term (20 years) the Vision encompasses:

- Developing partnerships with, for example, industry, Local Authorities, environmental groups and educational establishments (eg, Marston Vale Working Group);
- Setting and enforcing consistent standards for waste management practice to regulate the movement, treatment, storage and disposal of controlled wastes to protect and enhance the environment;
- Effectively managing the water resources of the LEAP area in a sustainable manner, to achieve secure water supplies for abstractors and a better water environment for future generations;
- Realising opportunities to improve the biodiversity/conservation value of the Plan area, with particular respect to river corridors and floodplains;
- Maintaining the high quality of the local rivers by monitoring to ensure continued compliance with river quality targets;
- Maintaining and, where necessary, improving flood protection along all Main Rivers, and ensuring that there is no inappropriate development in flood risk areas;
- Protecting, improving and promoting recreation on or near water, as assets of environmental, economic and social value.

More specifically and in the short-term (five years) it encompasses:

- Providing an effective flood warning service for those properties believed to be at risk;
- Achieving an improvement in water quality, particularly where targets are not presently being met;
- Achieving a better water environment for the Rivers Hiz and Oughton by efficient operation of the river augmentation scheme to its maximum potential;
- Realising opportunities for recreational activities such as navigation, angling and walking;
- Restoration of degraded river habitats;
- Achieving improved fish stocks through better management, eg the investigation of fish mortalities and failure to meet fish biomass targets;
- Working with Local Authorities to implement the UK Air Quality Strategy.

The successful future management of the Plan area requires the Agency to respond effectively to ever-increasing pressures exerted on the environment of the Bedford Ouse and to target resources where they are most needed.

Through our consultation exercise, we believe that this Vision can be shared by the local community. It is through establishing strong links with Local Authorities and communities, working together with industry and agriculture, and an increasing public awareness of the need to protect our environment that this Vision will become a reality.

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1.0 INTRODUCTION

This is the first annual review of the Local Environmental Agency Plan (LEAP) for the Bedford Ouse (Lower Reaches) area.

1.1 THE ENVIRONMENT AGENCY

The Environment Agency is the leading public organisation for protecting and enhancing the environment in England and Wales.

We regulate industry and inspect industrial sites to protect the environment and people from pollution and environmental risks to health. We work to encourage ever more effective environmental stewardship by industry and all other sectors. We maintain and develop essential flood defences, water resources and river navigation structures. We restore and improve the land and wildlife habitats. We also monitor and assess the environment. We make the data and information that we collect widely available.

Much of the gross pollution that characterised the last century has fortunately been dealt with – foetid rivers, choking smogs and unmanaged tips are now a thing of the past. But new challenges are emerging that are equally damaging, if less obvious in their manifestation: global warming, endocrine-disrupting chemicals, ultrafine particles in the air. For all the progress so far, there is a huge challenge ahead to build on past successes and to address these new threats as we help our economy and society make the longer-term transition to sustainable development.

1.2 OUR ENVIRONMENTAL VISION

Our vision for the environment and a sustainable future is:
a healthy, rich and diverse environment in England and Wales, for present and future generations.

The fundamental goals that we want to help achieve:

- **a better quality of life**. People will have peace of mind from knowing that they live in a healthier environment, richer in wildlife and natural diversity – an environment that they will care for and can use, appreciate and enjoy.
- **an enhanced environment for wildlife**. Wildlife will thrive in urban and rural areas. Habitats will improve in their extent and quality to sustainable levels for the benefit of all species. Everyone will understand the importance of safeguarding biodiversity.

The environmental outcomes for which we are striving:

- **cleaner air for everyone**. We will have cleaner and healthier air. The emission of chemical pollutants into the atmosphere will decline greatly and will be below the level at which they can do significant harm.
- **improved and protected inland and coastal waters**. Our rivers, lakes and coastal waters will be far cleaner. They will sustain diverse and healthy ecosystems, water sports and recreation such as boating and fishing, and those uses needed by a thriving and healthy community.
- **restored, protected land with healthier soils**. Our land and soils in the countryside and towns will be exposed far less to pollutants. They will support a wide range of uses, including production of healthy, nutritious food and other crops, without damaging wildlife or human health. Contaminated and damaged land will be restored and protected.

The changes we will seek:

- **a 'greener' business world**. Industry and businesses will value the services that come from a rich and diverse natural environment. In the process, they will reap the benefits of sustainable business practices, improve competitiveness and value to shareholders and secure trust in the wider community.
- **wiser, sustainable use of natural resources**. Business, public agencies, other organisations and individuals will minimise the waste they produce. They will reuse and recycle materials far more intensively, and will make more efficient use of energy and materials.

The risks and problems we will help manage, prevent and overcome:

- **limiting and adapting to climate change**. Drastic cuts will have been made in the emission of 'greenhouse gases' such as carbon dioxide, and society as a whole will take account of, and be prepared for, the probable changes to our climate.
- **reducing flood risk**. Flood warnings and sustainable defences will continue to prevent deaths from flooding. Property damage and distress will be minimised. The role of wetlands in reducing flood risks will be recognised and all the environmental benefits from natural floods will be maximised.

1.2.1 Challenges and opportunities

We and our partners have achieved a great deal in making the environment cleaner, safer and better protected against pollution, environmental crime, floods and the impacts of production and consumption. However, there is a huge challenge ahead to respond to some of the predictions for the future. The Agency will continue to work with the Department of the Environment, Transport and the Regions (DETR), which leads on UK environmental policy, and to advise it on these challenges. In its White Paper, *A Better Quality of Life: A strategy for sustainable development for the United Kingdom,* the Government has set out four objectives:

- social progress that recognises the needs of everyone;
- effective protection of the environment;
- prudent use of natural resources; and
- the maintenance of high, stable, levels of economic growth and employment.

The Agency's contribution to this strategy, set out in our vision, is best achieved if it can help everyone to:

- understand society's effects upon the environment;
- develop new attitudes and behaviour towards the environment;
- ensure that industry reduces its impact on the environment and recognises its dependence on it;
- take care of resources and deal with their own waste; and
- recognise that the natural environment has always changed, but that emissions of 'greenhouse gases' could accelerate climate change and lead to severe disruption of natural systems.

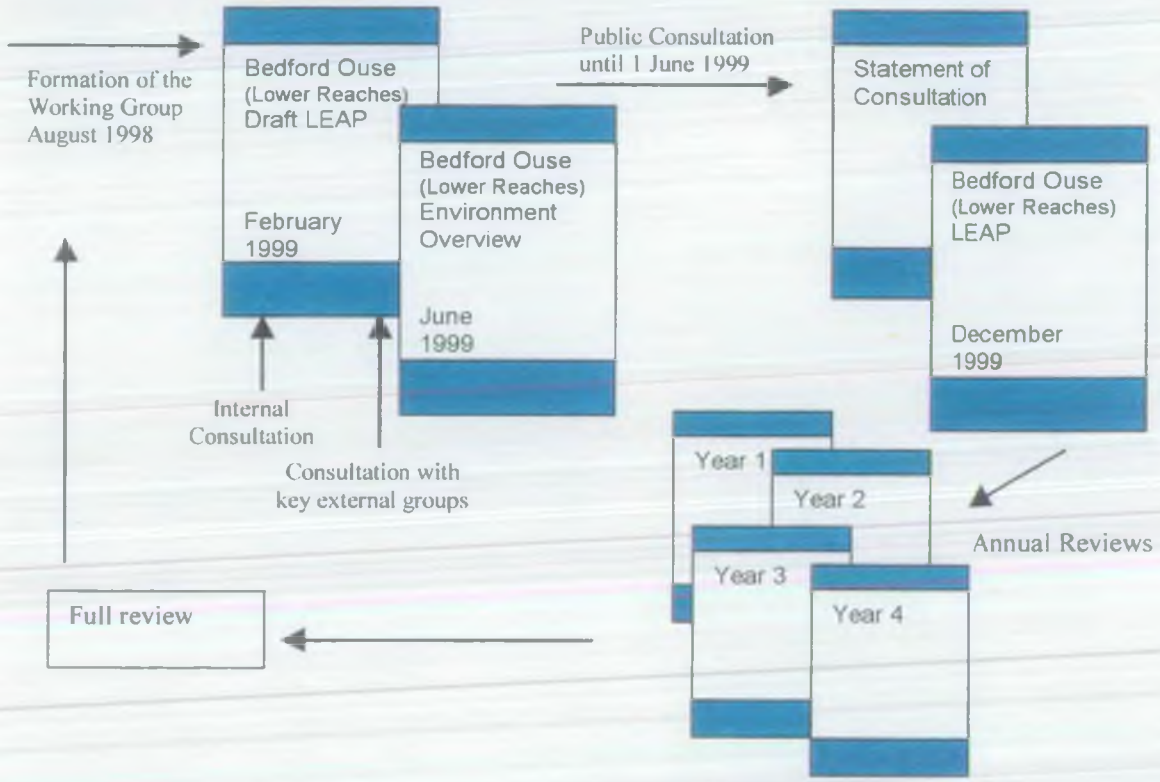
1.3 LOCAL ENVIRONMENT AGENCY PLANS (LEAPs)

At the United Nations 'Earth Summit' in 1992, governments agreed that local action is crucial for resolving global environmental problems. The Agency is acting locally on two fronts. In addition to contributing to the Agenda 21 plans and Community Strategies produced by local authorities, we have produced 130 LEAPs, covering every part of England and Wales. Each

LEAP identifies environmental issues that need to be addressed in a local area and the work that is required to resolve them.

The LEAP process involves several stages (see Figure 1), including a three-month period of public consultation to ensure that the views of the local community are taken into account. In February 1999 we published a Draft Plan for the Bedford Ouse (Lower Reaches) LEAP area, which described a Vision for the area, identified the local issues and provided a focus for discussion. We also undertook a full environmental review, the results of which were published in the Environment Overview (June 1999). Consultees' views were considered in detail during our preparation of the final LEAP. These views and Agency responses were summarised in the Statement of Consultation (November 1999). The LEAP was published in December 1999, and set out the issues and proposed actions for the Agency and its partners to deliver over a five-year period.

Figure 1: The Bedford Ouse LEAP Process



Some LEAP issues can be resolved through our statutory and routine work programme, whilst others require action over and above our day-to-day business. Funding for the latter is not always certain. Usually, because of the short-term nature of our funding, we can only firmly commit ourselves to action in the current and next financial years. Our priorities, policies and budget may change; these changes will be reflected in Annual Reviews. Some issues require solutions beyond the scope of our existing budgets or technology – they are nevertheless valid issues and will be included in the plan in the hope that a solution may be found in the future.

This is the First Annual Review of the Bedford Ouse (Lower Reaches) LEAP, and reports on progress with the activities that were identified. It also identifies any additional actions required, and highlights issues and activities that have been resolved or that will be progressed as part of our routine work. In preparing this document, we have consulted with representatives of the local community through the Area Environment Group (AEG).

The AEG consists of people from different walks of life, who have broad experience and interest in environmental matters and who represent our customers. AEG members include, for example, river users, local authority and environmental organisation representatives, farmers and industrialists. Members of the Bedford Ouse (Lower Reaches) Sub-Group are listed in Appendix 3.

The annual review process enables us to assess progress on a regular basis and incorporate changing local and national priorities as necessary. We hope that publication of this document will encourage communication between interested parties and those responsible for action, to ensure that the momentum of the activity programme is maintained and that the Plan continues to address relevant and significant issues in the LEAP area.

2.0 THE LEAP AREA – An Environmental Update

2.1 INTRODUCTION

The Plan area was described in the Environment Overview (June 1999) and in the Bedford Ouse (Lower Reaches) LEAP (December 1999). The following is therefore a brief description only. Subsequent sections provide a review of local issues, particularly over the period since the LEAP was published.

The Plan covers the catchment of the River Great Ouse between Kempston in Bedfordshire and Earith in Cambridgeshire, a stretch also known as the Bedford Ouse. This river flows generally north-east through the area, which also includes the catchments of the rivers Flit, Hiz, Ivel and Kym and their tributaries as well as the Alconbury and Ellington Brooks. 1,556 km^2 of land is included, much of which lies within the counties of Bedfordshire (47%) and Cambridgeshire (40%). The remainder is in Hertfordshire (10%) and Northamptonshire (3%).

The land is fairly low-lying, ranging from just above sea level at Earith to a high point of 183m at Telegraph Hill, south-west of Hitchin. The predominant land use is agriculture, and the high quality of the land is particularly suitable for arable crops. The largest industrial enterprise is the Stewartby brickworks in Bedfordshire, and a number of former brick pit voids have been utilised as landfill sites or left flooded for nature conservation interest.

The amount of open water and marginal wetland habitat for plants, birds, invertebrates and aquatic wildlife has been considerably enhanced by flooded gravel and clay pits and water storage reservoirs (eg Grafham Water). Portholme Meadow, which is seasonally flooded as part of the floodplain in Huntingdon/Godmanchester, is designated as a Site of Special Scientific Interest (SSSI) and as a candidate Special Area of Conservation (cSAC). In total, there are 50 SSSIs in the area, of which 26 are water dependent.

The LEAP area is essentially rural, with the major urban centres being Hitchin/Letchworth, Bedford, Eaton Socon/St Neots, Huntingdon and St Ives. Both Romans and Saxons had settlements in the area, and past residents have included Oliver Cromwell, who was born and went to school in Huntingdon, John Bunyan, who was born at Elstow and wrote 'The Pilgrim's Progress' whilst imprisoned in Bedford on religious grounds, and Catherine of Aragon, first wife of Henry VIII, who spent the last years of her life at Kimbolton Castle. During the Second World War, Glenn Miller and his band were based in Bedford and made many of their broadcasts from there. The world's first 'Garden City' can be found in this area - Letchworth was designed to combine the conveniences of urban living with the benefits of country life.

2.2 WATER RESOURCES

2.2.1 Rainfall, River Flows and Groundwater Levels

The long term (1960-1991) average rainfall for the LEAP area is about 550 mm, compared to the long term UK average of 1082 mm. Rainfall patterns since publication of the LEAP in December 1999 were characterised by alternating wet and dry months until September 2000. Since then, monthly rainfall totals have been consistently above average.

River flows at the start of 2000 were below average for the time of year, but they increased significantly in March and remained at or above average throughout the summer of 2000.

The high rainfall during the autumn and winter boosted flows to well above average, where they still remain.

Since January 2000, chalk groundwater levels have been at or above average. During the autumn and winter of 2000, following the above average rainfall, levels rose significantly. In some places they were higher than the previously recorded maximum for the time of year. Greensand levels have shown a similar pattern, although were below average at the start of 2000.

Key water levels and flows associated with abstraction licences were monitored throughout the year and due to the high flows in the last 16 months, particularly during the summer of 2000, no spray irrigation restrictions were necessary.

However, the presence in some watercourses of the bacteria that causes potato brown rot/tomato bacterial wilt meant that irrigation of such crops was banned by the Ministry of Agriculture, Fisheries and Food (MAFF) in those locations. MAFF is continuing with its programme to eradicate the host plant, woody nightshade *(Solanum dulcamara)*, where it is growing with its roots in a watercourse (see Issue 20).

2.2.2 National and Regional Water Resources Strategy

Our National and Regional Water Resources Strategies, which look 25 years ahead at the demands for and uses of water, were published in March 2001. Following extensive consultation, which generated 270 replies (61 from within Anglian Region), the resulting opinions and ideas were incorporated into the strategy documents where appropriate. The Agency and other key partners have 30 actions to take forward to help to achieve our vision of "enough water for all human uses with an improved water environment".

2.2.3 DETR Review of the Abstraction Legislation

The Government has carried out a review of the abstraction licensing legislation, and the Department of the Environment, Transport and the Regions (DETR) published its decisions in 'Taking Water Responsibly' in March 1999 (see also section 4.10). A number of areas were covered, including charging, trading licences, the administration of licence applications, the introduction of permits and consents, and publication of Catchment Abstraction Management Strategies (CAMS), which are discussed below. Some of these proposals require a change in the law, and the Water Bill was mentioned in the Queen's Speech in November 1999. A Draft Water Bill was published for consultation on 7 November 2000, but its progress is dependent upon parliamentary time.

CATCHMENT ABSTRACTION MANAGEMENT STRATEGIES

The DETR review of abstraction legislation included a recommendation that information about water resources, and how we allocate and regulate water use, should be made more publicly available in the form of CAMS. Public consultation about the concept began on 10 April 2000. Sir John Harman, the Agency Chairman, and the Rt Hon Michael Meacher MP hosted the public launch in London.

In his speech, Michael Meacher said "People will always need to take water, but abstractions need to be managed in a way which takes full account of environment protection, developing needs and climate change....and when water is abstracted, it is vital that it is used effectively and efficiently, without waste." He concluded by saying "The CAMS process embodies the voluntary, co-operative approach which is essential for sustainable water resources

management. The Agency's successful implementation of CAMS will rely on the active involvement of all key stakeholders."
More detail about CAMS can be found in the Agency publication 'Managing Water Abstraction – the Catchment Abstraction Management Strategy Process', which was published in April 2001. This document is available on request or on our website at www.environment-agency.gov.uk.

Nationally, work on CAMS production began in April 2001. The completion of a CAMS for all parts of Anglian Region's Central Area is planned to take six years. Our first will cover the Upper Ouse and Bedford Ouse catchments.

RESTORING SUSTAINABLE ABSTRACTION PROGRAMME

Another new initiative to come out of the review of abstraction legislation is the Restoring Sustainable Abstraction Programme (RSAP).

The RSAP initiative was set up in 1999 to catalogue rivers and wetland sites where there is currently concern about the interaction of abstraction and water levels. The catalogue will help to establish a future strategy to prioritise the sites for investigation and, if appropriate, options for implementation. This will include the sites under various other initiatives and also those that other organisations or the Agency think are affected by abstraction.

There are six stages to the RSAP, which are:

- Identification
- Prioritisation
- Investigation
- Options identification and appraisal
- Options selection and implementation
- Post Scheme Appraisal.

We have completed the identification and prioritisation stages. All AMP3 and Habitats Directive sites were included in the catalogue, and a number of sites identified in the English Nature/Agency publication 'Water Abstraction and Sites of Special Scientific Interest in England – A Review by English Nature and the Environment Agency' (September 1999). There are five sites in the Bedford Ouse area; the main site is Portholme Meadow, which is a Habitats Directive site. Fancott Woods and Meadows, Brampton Racecourse, Flitwick Moor and Pulloxhill Marsh are also included in the catalogue, but have been identified in the above document as affected by drought and not significantly affected by abstraction.

2.2.4 Asset Management Plan 3

OFWAT has carried out a review of water company prices in the last year. This process, which is known as Asset Management Plan 3 (AMP3) has set the limit on the prices that water companies can charge their customers for the period 2000 to 2005. The programme of environmental investigations, which was promoted by the Agency, has (in the main) been accepted by OFWAT and included in the price limits. Now several schemes and environmental investigations into the impact of certain water company abstractions can be financed by the water companies.

There are no sites in the Bedford Ouse area. However, investigation of the impact of abstraction at Offord and Brownshill on the Ouse Washes and The Wash (which are

downstream of the LEAP area) is identified in the AMP3 programme of work for Anglian Water Services (refer to the new activity under issue 2 in chapter 3.4(a)).

2.2.5 Habitats Directive

The Habitats Directive was referred to in the LEAP. Since that document was published, work on the review of consents in our Water Resources function has progressed well. A hydroecological Review (which will increase our understanding of the interaction of hydrology and ecology at certain sites) is well under way. This will help complete Stage 2 (identification of abstraction licences that have a likely significant effect) and will assist with Stage 3 (appropriate assessment). The only site in the Bedford Ouse area is Portholme Meadow, and a site visit associated with the Hydroecological Review is planned for mid June.

The Environment Protection functions covering waste, water discharges and air quality have begun to scope the work required to help complete the Stage 3 appropriate assessment.

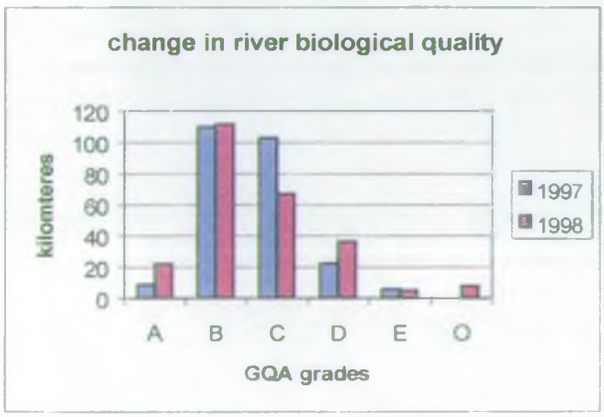
2.3 WATER QUALITY

Our assessment of water quality is based on a national scheme that caters for the different types of river throughout England and Wales. This General Quality Assessment (GQA) provides an absolute measure of quality and is designed to show trends. The GQA grades A/a to F/f indicate the following standards of water quality:

Chemical grade	Water Quality	Biological grade
A	Very good	a
B	Good	b
C	Fairly Good	c
D	Fair	d
E	Poor	e
F	Bad	f

The following graphs and table compare the water quality data reported in the LEAP with our latest validated data. 'O' is the length that was not classified.

Figure 2: Annual Trend in River Water Quality



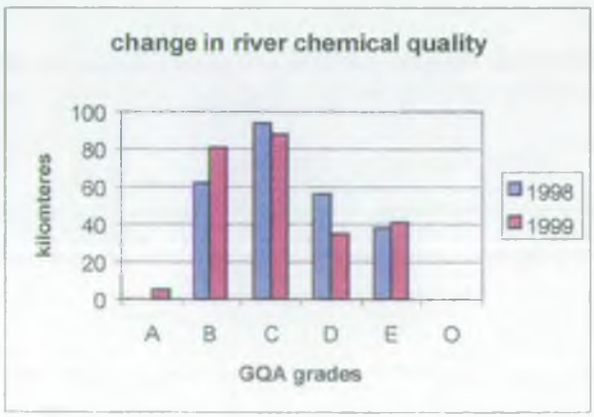


Table 1: Annual Changes in GQA Grades

Change in GQA Grade	Biological (km)	Chemical (km)
1 grade improvement	59.2	53.2
2 grade improvement	0	0
3 grade improvement	0	0
1 grade deterioration	32.3	8.7
2 grade deterioration	6.0	0
3 grade deterioration	0	0
No change	144.3	187.8
Comparison not possible	7.9	0
Total length monitored	249.7	249.7

The data show that there was an improvement in river chemical quality in the area between 1998 and 1999. The length achieving grades A and B increased, with a marginal increase in those achieving grade E. Nearly 86km of river in the Plan area are grade A and B.

This area has more than 249 km of measured river and, at the end of December 2000, 98.2% of this was compliant with its long and short term River Quality Targets. The failures were for Dissolved Oxygen concentrations, and it appears that these failures were attributable to low flows.

For biological quality, 1998 is our most recent fully validated data. The indications from more recent surveys are that there has been an overall improvement in quality over the last three years.

Some of the results in 2000 were the best ever recorded from the River Ivel, the River Hiz, the River Flit and the River Great Ouse. Local and regional rarities recorded in the catchment included the White-legged Damselfly (*Platycnemis pennipes*) and Emperor Dragonfly (*Anax imperator*). The endangered cased caddis-fly *(Leptocerus lusitanicus)* was also recorded from the River Great Ouse.

2.4 DEVELOPMENT

The Hertfordshire and Bedfordshire Structure Plans make provision for 114,300 new dwellings between 1991 and 2011, and Central Government requires a further 35,000 homes for the two counties between 2011 and 2016. In the Bedford Ouse area, provision for this housing is made through existing planning permissions, local plan allocations and two major housing developments, at Elstow and at Stevenage, of approximately 5,000 dwellings each. An application for outline planning permission for Elstow Garden Village was submitted in late 1999. The planning authority expects to receive the master plan and environmental statement for 5,000 houses on land west of Stevenage in July. In the meantime, Huntingdonshire District Council has received proposals for land east of St Neots to become a major housing development site.

'Planning Policy Guidance Note 3: Housing', published by the DETR, requires the reassessment of housing allocations using sequential testing. As a result, North Hertfordshire

District Council has withdrawn its Local Plan, and an Urban Capacity Study is being undertaken to review land for housing allocations.

Bedfordshire County Council is beginning its Structure Plan Review and anticipates that the issues papers will be published in Autumn 2001.

The Capacity Study for Cambridgeshire was undertaken in late 2000, and the results recommended a new settlement to meet housing targets. However, no new settlement has been proposed in this LEAP area, where existing allocations have been identified as contributing to housing figures.

An application for an industrial warehousing development on the Alconbury airfield site was refused by the planning authority on various issues, including scale and access. The developer has appealed against the decision, and the proposals are now the subject of a Public Inquiry. The outcome of the Inquiry has yet to be decided.

2.5 WASTE TREATMENT AND DISPOSAL

The Government's National Waste Strategy for England and Wales was published in May 2000 and outlines a series of new initiatives, statutory and voluntary measures. Over the next twenty years these initiatives aim to facilitate an overall reduction in the amount of wastes produced nationally, an increase in the recycling and recovery of wastes (including energy from waste) and a progressive switch to non-landfill methods for waste management.

As part of the Agency's remit to improve the availability of information relating to waste management, we published a Strategic Waste Management Assessment (SWMA) document for the East of England Planning Region in November 2000. The SWMA reviews the quantity and types of waste arising, as well as methods of disposal and patterns of waste flow within the region. Together with programmes such as the Agency's Life Cycle Assessment (LCA) tool, the SWMA will help to monitor waste reduction measures and waste management methods/options, and will assist in the development of regional and local waste planning strategies. We are currently undertaking work to update the SWMA.

The East of England Regional Technical Advisory Body (RTAB) has now been formed and includes authorities within Norfolk, Suffolk, Cambridgeshire, Bedfordshire, Hertfordshire and Essex. The RTAB has started to work towards reporting to the Regional Planning Body on the options for provision of an adequate waste management infrastructure across the Region.

2.5.1 Bedfordshire Waste Strategy and Planning

We have been working with district councils in Bedfordshire, and Bedfordshire County Council, in the development of an integrated waste management strategy for their area. The National Waste Strategy has provided a timely and positive steer to this process, in establishing targets and objectives for the recovery and recycling of Municipal waste. Agency representatives have been involved throughout the process in stakeholder events to discuss issues surrounding waste management in Bedfordshire and in providing information and advice concerning future options for waste management. In particular, the Agency has provided assistance to enable Bedfordshire authorities to assess the environmental impacts of future options for waste management using the Agency's WISARD Life Cycle Assessment model.

A draft waste strategy was produced in February which, when finalised, is intended to inform the development of the Waste Local Plan.

2.6 TRANSPORT

Bedfordshire, Cambridgeshire and Hertfordshire County Councils have each produced a Local Transport Plan for their county. Each plan proposes transport improvements and major transport initiatives for a five year period, between 2001 and 2006.

In line with objectives in the Local Transport Plan for Cambridgeshire, which recommends maintenance of the condition of the road network, work to improve access points on the A14 trunk road has been proposed. There are also proposals for a Rapid Transit (guided bus) System between Huntingdon and Cambridge, to run along the existing disused railway corridor, with extensions to Trumpington, Addenbrookes, Godmanchester and Huntingdon. The segment from Huntingdon to St Ives will run in parallel with the A14. The final report on this Cambridge-Huntingdon Multi Modal Study (CHUMMS) will be published at the end of July.

The Agency has received consultation on the A421 Bypass proposals, which will re-route the road from Bedford to the A1 in order to bypass Great Barford. Construction will commence on the Western Bypass around Bedford when Reserved Matters are fully resolved with the Agency.

2.7 FLOOD DEFENCE

Over the last eight months, rainfall has been well above average for the time of year. As a result, river flows have been 2.5 times higher than normal. In spite of this, there has been no significant flooding in the Plan area. Floodplains have served their purpose well here and have been inundated several times. Although persistent, the floods of last winter did not cause us any significant property flooding problems. However, the high groundwater levels reported in section 2.2.1 have affected drainage rates in the area. In particular, the Swavesey Fen area has been slow to drain off.

As part of the Agency's commitment to making environmental information more accessible to people, Indicative Floodplain Maps have now been published on the Internet. They are included in the 'What's In Your Backyard?' section of our website at www.environment-agency.gov.uk, which provides a range of environmental information on a postcode basis. The maps give a general overview of areas of land in the floodplains of England and Wales and therefore potentially at risk of flooding from rivers or the sea. However, they do not show flood defences, which offer protection in many areas, nor do they show the impact of flooding from other sources, eg burst water mains, road drains, run-off from hillsides, sewer overflows etc. Although the level of detail on the maps is quite general, it should prompt people to find out more about the likelihood of flooding in their area and about the flood warning arrangements.

2.7.1 Flood Warning

The Agency's flood warning system has undergone a complete review since the LEAP was published. As a result, the former colour-coded (yellow, amber, red) system has been changed to a new four-phase system using: *Flood Watch ~ Flood Warning ~ Severe Flood Warning ~ All Clear*. Launched in September 2000, this system was designed to eliminate public confusion over the colour codes. In addition, the introduction of the new Flood Watch stage provides an early alert and enables us to reach new areas away from Main River.

Having had an extremely wet winter, the system has been fully tested, both internally and externally. 179 flood warnings were issued in the Bedford Ouse area between September 2000 and May 2001. These included five Severe Flood Warnings, which are issued when significant property flooding is anticipated; two were on the Alconbury Brook (30 October and 6 November) and three on the River Kym (30 October, 6 November and 4 February). We have received positive feedback on the new codes from both our professional partners and the public. Excellent media coverage has greatly improved public awareness of flooding and the Agency.

Our ongoing flood warning improvement programme has seen the introduction of direct flood warnings for those at risk in several locations, using the Automatic Voice Messaging (AVM) system. A new Self Help Group has been formed for Houghton & Wyton. In September we shall be holding the second of our Parish/Town Council meetings in this area, where we shall outline what our role is and the role for councils in setting up local Self Help Groups. Guest speakers will explain the roles of other authorities. This forum will also give an opportunity for specific problems and questions to be raised.

2.8 FISHERIES, ECOLOGY AND RECREATION (FER)

2.8.1 Fisheries

The Plan area has 190 km of coarse fishery and 3 km of trout fishery. There have been no routine fisheries surveys since the LEAP was published in December 1999. However, we have undertaken a number of special investigatory surveys.

Firstly, we collaborated with Queen Mary and Westerfield College to assess the success of previous habitat enhancement projects. There were two such sites in this area. In the New Cut in Bedford we installed four pairs of stone deflectors; the survey recorded a biomass of 23.3g/m^2, with chub and dace predominant by weight. It was also pleasing to capture a number of barbel, from previous restocking exercises, which had survived and grown on. At Henlow on the River Ivel, a number of gravel riffles supported a biomass of 27.6g/m^2. This was significantly higher than a control site in what was a heavily engineered section. The principal species captured was chub.

A special survey was undertaken at Biggleswade to investigate the status of restocked barbel. The survey encountered 63 fish, of which 41 were identified as being previously introduced. The largest fish, which was obviously a longer term resident, weighed 5kg and was aged at 20 years. It was interesting to note that the barbel were distributed according to suitable habitat - shallow, faster flowing stretches over a gravel bed with some bankside trees providing cover. This led us to propose a fisheries enhancement project downstream of where the barbel population was concentrated. Unfortunately, we could not proceed with this project as we were unable to obtain landowner approval.

At Great Paxton we had restored the back channel in 1998, dredging its 200m length and reconnecting it to the river. A subsequent survey in 2000 caught an amazing 1,500 fish, registering a biomass of 85g/m^2. Roach were the predominant species of the 12 captured.

2.8.2 Recreation

Our primary aim is to protect, improve and promote the recreational use of inland waters. This has been achieved by a number of partnership projects which sought to improve access to and use of this area's rivers.

Collaboration with the Ivel Valley Countryside Project (IVCP) has progressed a range of conservation and recreation initiatives. Notably, in 2000 we completed a number of the projects highlighted in the Ivel feasibility study. Works have included willow pollarding, bankside fencing on the Riddy Nature Reserve at Sandy, planting willow, alder, ash and black poplar trees on the riverside between Biggleswade and Sandy, and planting 500 trees on Biggleswade Common. In addition, footpaths are being refurbished where riverbanks have been eroded, and bat boxes and otter holts constructed to provide shelter and habitat for these declining species.

The IVCP has also extended the Ouse Valley Way (OVW). We contributed financially as well as providing technical expertise. The footpath now extends upstream from Eaton Socon to Bedford. Ultimately it will be possible to walk on a promoted path from the source of the Ouse to the Wash.

On the OVW near Needingworth, we gave approval for Huntingdon District Council to erect a Millennium Stone at the point where the Meridian line crosses the footpath. We have also created a conservation pond on the OVW at Brampton. The site was originally used to grow fish in four rectangular ponds. During 2000, we recontoured the site and dug a single pond that includes a variety of habitat features; planting included a reed bed and native trees. We also installed a new fence and on a grassed area provided benches, tables and an interpretation board for passing walkers.

Earlier this year we worked with two angling clubs to provide disabled angling platforms on the Bedford Ouse plus adjacent dedicated car parking. Three platforms were installed at Wyboston Leisure Park with Luton Angling Club, whilst near Buckden Marina we provided two for Offord and Buckden Angling Society. At both sites the design allows wheelchair-bound and other less able-bodied anglers to fish safely from the bank.

Offord and Swavesey Angling Society have refurbished a small off-river marina upstream of Brownshill Staunch. We part-financed the work, which involved installing a new boardwalk and moorings. The facility will be used by club members and local people.

The Agency also made a financial contribution to a reprint of the 'Hitchin's Riverside Walks' leaflet, which is produced by the Countryside Management Service on behalf of Hertfordshire County Council and North Hertfordshire District Council. The leaflet provides information on access and the countryside around the headwater tributaries of the River Hiz, an area where we worked with Three Valleys Water plc on the Alleviation of Low Flows scheme.

2.8.3 Navigation

There is over 66 km of navigable waterway available to boaters in the Bedford Ouse LEAP area, allowing them to explore some to the most picturesque landscapes of the Great Ouse navigation system. Popular destinations include the attractive market towns of Bedford, St Neots, Huntingdon and St Ives. All of these towns have active rowing clubs with numerous races, regattas and events hosted annually.

The Agency is contributing financially to the British Waterways Partnership investigating the feasibility of the proposed new waterway linking the River Great Ouse near Bedford with the Grand Union Canal at Milton Keynes. This exciting project would represent the first complete canal construction for over 100 years. The last was the Manchester Ship Canal, constructed in 1898.

The Great Ouse Boating Association has recently commissioned a pre-feasibility study, 'Navigating the Future', to look at the potential for making more waterways available for use by recreational craft in the Bedford Ouse LEAP area. They include the River Ivel, River Kym and Alconbury Brook. The aim of the document is to bring these watercourses to the attention of a wider membership. The Agency actively supports this initiative.

2.8.4 Conservation

Enhancing biodiversity continues to be a key aim for the Bedford Ouse LEAP area. The Conservation team co-ordinates the Agencies duties under the Habitats Directive and provides advice to the functions on procedures and technical issues. All permitting functions are progressing with the Review of Consents for Portholme Meadow cSAC.

After the successful completion of Biodiversity Action Plans (BAPS) for Bedfordshire and Luton they will be launched by the partners this summer. The BAPs contain objectives and targets for enhancing habitats and species. We have contributed to a number of partnership projects which will move towards meeting some of the biodiversity objectives, for example fencing an area of watercourse to provide habitat for Water Voles (*Arvicola terrestis*).

River corridor and species surveys undertaken by the Agency enable it to meet its statutory conservation duties. The survey data, which includes otters, water voles and plant community types, is used to inform decisions and set targets for restoration and enhancement.

2.8.5 Freshwater Biology

Invertebrate and plant species are good indicators of the state of rivers and lakes. Diverse invertebrate fauna and plant flora demonstrate our success in meeting water protection and water management objectives, as good water quality, water quantity and habitat are all vital to sustain flora and fauna communities appropriate to the river catchment. The Bedford Ouse has a rich fauna dominated by caddis-flies, dragonflies, damselflies, beetles, water bugs and snails - indicative of slow flowing, enriched water. In the faster flowing tributaries, mayflies also tend to predominate.

2.9 SOCIO-ECONOMIC CONSIDERATIONS

As well as its environmental responsibilities, the Agency is required to have regard for the effect that its proposals would have on the economic and social well-being of local communities. As a champion for sustainable development, we will work with partners across society to protect and enhance the environment in a way that links with measures to promote social fairness and a prosperous, efficient economy. Although regulation by authorisation and licence still has a central role, we increasingly need to take on board other solutions. These include economic instruments and voluntary agreements, building up our educational programme, and putting environmental issues into the plans of regional development agencies and into local community plans.

The Bedford Ouse area comes under the remit of the East of England Development Agency (EEDA), which will be influential in shaping its future development along with the remainder of its region – the six counties of Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk and Suffolk. We have been working with EEDA by raising key environmental issues and opportunities for consideration in its economic development strategy.

3.0 PROGRESS REPORT

We are constantly working to resolve the issues identified in all of our LEAPs. This chapter shows the progress that has been made on those that are in the Bedford Ouse area and highlights both achievements and disappointments.

3.1 NOTABLE ACHIEVEMENTS

FER has been working on partnership projects with the Ivel Valley Countryside Project, to enhance biodiversity in the Bedford Ouse LEAP area. Projects already completed include pollarding of mature willows, bankside fencing to provide enhanced habitat for water voles, otters and invertebrates, planting native trees, installing bat boxes and creating otter holts.

We have created a new public amenity area on the Ouse Valley Way at Brampton. Four Agency fish rearing ponds have been reshaped and surrounding land selectively cleared to create a number of new habitat features. The planting scheme included the retention and addition of various native plants and trees. With the installation of picnic benches, tables, a lifebelt and an interpretation board we have fulfilled our objective of making best recreational and conservation use of Agency land

Working in partnership with local angling clubs, we have provided five angling platforms on the Bedford Ouse for disabled anglers, together with adjacent dedicated car parking facilities. Three were installed at Wyboston Leisure Park and two near Buckden Marina. These platforms allow wheelchair-bound and other less able-bodied anglers to fish safely from the bank.

A new four-stage flood warning system has been successfully implemented in England and Wales. This has aided communication between ourselves and local authorities, emergency services, the media and the general public.

In spite of high levels of rainfall throughout the autumn and winter, that caused river flows to be 2.5 times higher than normal during the period, flood defences and river maintenance throughout the system ensured that there was no significant flooding in the area covered by this Plan.

We have made good progress with our review of flood risk maps and the issue of direct flood warnings to people at risk. Our Automatic Voice Messaging service has been extended and offered to all those at risk at Shefford on the River Flit, the Hemingfords North on the River Great Ouse, Kempston on the River Great Ouse, and the Victoria Terrace, Bridge Terrace and Mill Quay areas in St Ives.

3.2 DISAPPOINTMENTS

We have been unable to progress with some of the activities identified in the LEAP owing to a lack of resources and the need to concentrate on those with the highest priority. In addition, some activities have been delayed by restrictions imposed as a result of the Foot and Mouth Disease outbreak.

3.3 SUMMARY OF ISSUES (See Map 2)

Issues 1-23 in the following list were identified in the Bedford Ouse (Lower Reaches) LEAP (December 1999) and progress is reported in the tables on subsequent pages. One new issue has been identified and added to the relevant section. It is printed in *italics* in the list below.

a) Management of Water Resources

Issue 1 Future demand for water abstraction above currently licensed quantities cannot be met from local groundwater resources or by using surface water in the summer.
Issue 2 Ensuring that rivers and wetlands are not adversely affected by abstraction.
Issue 3 Ensuring that the operation of the Rivers Hiz and Oughton Support Scheme is fully meting its objectives to alleviate low flows.

b) Enhancing Biodiversity

Issue 4 Failure of the Bedford Ouse and associated tributaries to achieve fish biomass targets.
Issue 5 Aquatic habitats need to be restored or improved to benefit fish stocks and other associated wildlife.
Issue 6 River and floodplain habitats are degraded.
Issue 7 Houghton structures require refurbishment to maintain river levels in line with WLMP recommendations.

c) Enjoyment of the Waterways

Issue 8 There is a lack of public access to the River Great Ouse for recreational activities.
Issue 9 The impact of Cardington Canoe Slalom Channel on the ecology of surrounding watercourses.
Issue 10 There is river traffic congestion at locks during the summer.
Issue 11 There is a problem with vandalism of Agency lock structures.
Issue 24 There is a lack of navigation facilities on the River Great Ouse between Bedford and Earith.

d) Management and Disposal of Waste Material

Issue 12 Public concern over brick making and waste disposal sites in the Marston Vale.
Issue 13 The scale of misuse of exempt waste management sites is unknown.
Issue 14 There is a lack of information on the land spreading of wastes.

e) Risks to Water Quality

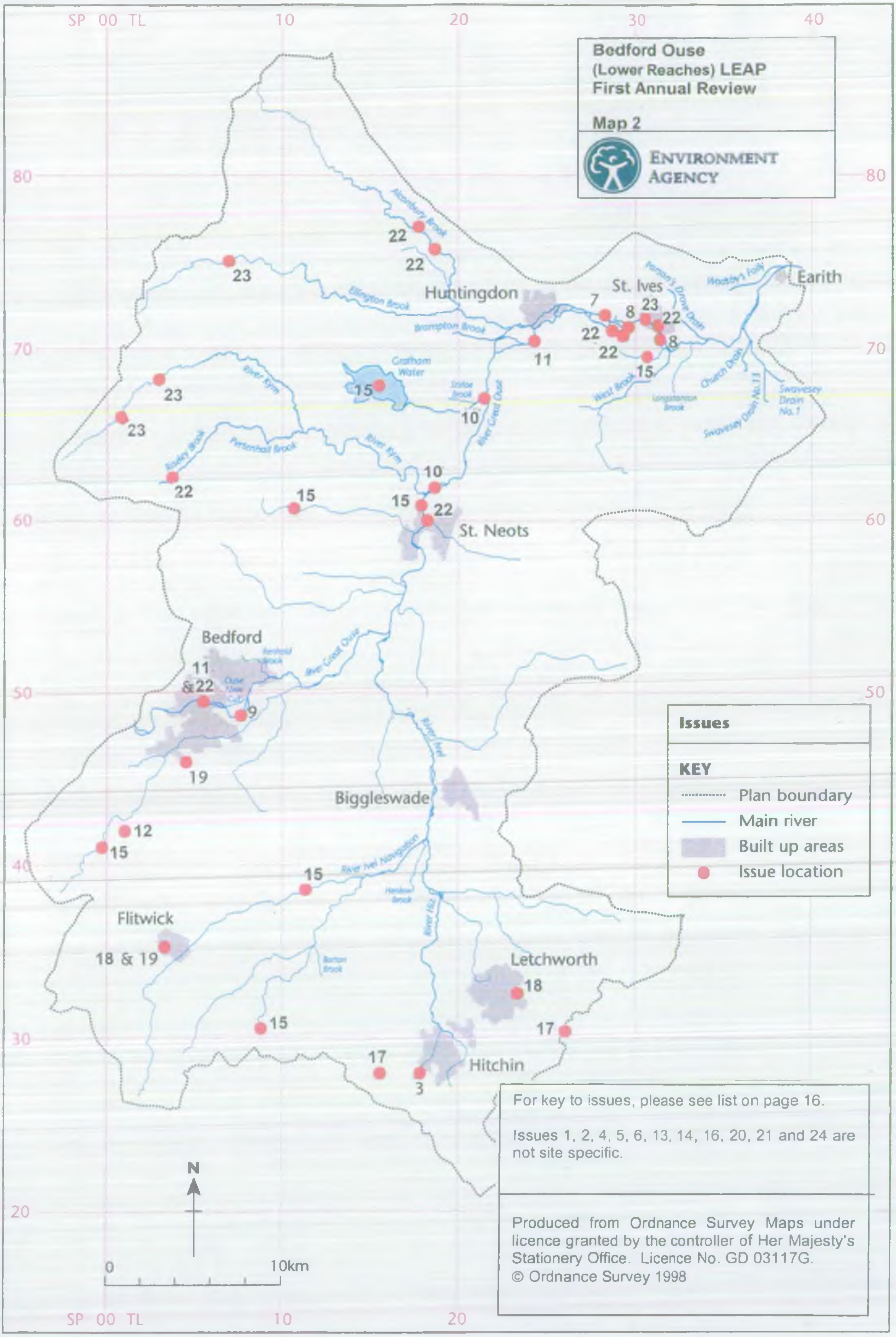
Issue 15 Eutrophication of Grafham Water and the Rivers Great Ouse, Ivel and Hiz.
Issue 16 A number of river stretches fail to met their River Ecosystem Targets.
Issue 17 Contamination of potable water supply by nitrates.
Issue 18 Identification and remediation of contaminated land.

f) Need for Monitoring and Further Investigation

Issue 19 Public concern over the findings of the Eurohazcon Study.
Issue 20 The bacteria which cause Potato Brown Rot/Tomato Bacterial Wilt has been identified in the Rivers Hiz, Ivel and Great Ouse.

g) Improving Flood Defences

Issue 21 Implementation of the Bye Report recommendations.
Issue 22 Review of the current standards of flood protection.
Issue 23 Non Main River flooding.


Bedford Ouse
(Lower Reaches) LEAP
First Annual Review
Map 2
ENVIRONMENT AGENCY
Huntingdon
St. Ives
Earith
St. Neots
Bedford
Biggleswade
Flitwick
Letchworth
Hitchin
Grafham Water
River Great Ouse
River Kym
River Ivel
River Ivel Navigation
River Hiz
Ellington Brook
Brampton Brook
Alconbury Brook
Pertenhall Brook
Riseley Brook
West Brook
Church Drain
Swavesey Drain No.13
Issues
KEY
Plan boundary
Main river
Built up areas
Issue location
For key to issues, please see list on page 16.
Issues 1, 2, 4, 5, 6, 13, 14, 16, 20, 21 and 24 are not site specific.
N
0
10km
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3.4 ACTIVITY PLANS

The text in the following tables has been developed from the Bedford Ouse LEAP and should ideally be read in conjunction with that document. It has been updated to show the progress and changes that have occurred since the LEAP was published in September 1999. Map 2 shows the locations of site-specific issues.

KEY TO CODES USED IN THE ACTIVITY TABLES

Costs

tbd	to be determined
u/k	unknown
R	Revenue/routine work

Agency staff responsibilities

CSm	Customer Services Manager
EPLm	Environment Planning Manager
EPRm	Environment Protection Manager
FDm	Flood Defence Manager
FERm	Fisheries, Ecology and Recreation Manager
WRm	Water Resources Manager

Shaded boxes indicate activities that have been completed or that will now be progressed as part of our routine work.

a) Management of Water Resources

No.	Issue	Activity	Responsibility	Cost (£k)	99/00	00/01	01/02	02/03	03/04	Comments
1	Future demand for water abstraction above currently licensed quantities cannot be met from local groundwater resources or by using surface water in the summer.	1) Store water from rivers during high flows in winter.	Farmers Water Companies All PWS users MAFF County Councils Agency IDBs *WRm*	#	*	*	*	*	*	Most groundwater resources and summer surface water resources are fully committed in this area, so this is an ongoing activity. Farmers are encouraged to store water and particularly to work together to develop schemes that can be shared. This is reflected in action A17 in the Anglian Region Water Resources Strategy, published in March 2001.
		2) Redistribute water from areas of surplus to areas of deficit.	Farmers Water Companies All PWS users Agency *WRm*	tbd	*	*	*	*	*	This is also an ongoing activity. It is referred to in the Regional Water Resources Strategy in action A25: "The Agency will encourage the development of more local transfers of raw or treated water to meet particular circumstances, provided that they take account of the needs of the environment and other uses".
		3) Reduce demand by, for example, metering, recycling , waste minimisation, efficient irrigation, environmental best practice and more efficient use.	Farmers Water Companies All PWS users DETR Local Planners Building Regulation Agency *WRm*	R	*	*	*	*	*	This is another ongoing activity, referred to in actions A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A14, A15, A16, A27 and A29 of the Regional Water Resources Strategy. In addition, the Agency's National Water Demand Management Centre is developing a training plan to increase the depth and breadth of knowledge of demand management for Agency staff, to help integrate demand management within the Agency.
		4) Carry out further studies on the Bedford Oolite aquifer to establish future groundwater licensing policy.	Agency *WRm*	97.5	*	*	*			The Bedford Oolite project started in 1994/5, when 6 monitoring boreholes were constructed. Stage II of the project, a five-year monitoring programme, is still under way and will be continued until a preliminary review of the monitoring data is undertaken. This is planned to be completed by March 2002. Licensing policy will also be reviewed in the Upper Ouse and Bedford Ouse CAMS.

No.	Issue	Activity	Responsibility	Cost (£k)	99/00	00/01	01/02	02/03	03/04	Comments
1	Continued	5) Collect field data for the Woburn Sands aquifer to enable future modelling.	Agency *WRm*	140					*	The Woburn Sands project, designed to examine these issues, started in 1996/7. Phase I (identification of data requirements) was completed in 1998. This identified that there was insufficient data available to complete a computer model of the aquifer and that a field data collection phase, over 2-3 years, would be necessary before modelling could be considered. This phase is now planned to start in 2003/4. This delay is because the priority order of the groundwater investigation and modelling programme has been reassessed.
		6) Re-establish the groundwater licensing policy for the Woburn Sands.	Agency *WRm*	R			*	*		Licensing policy will be reviewed in the Upper Ouse and Bedford Ouse CAMS. The results of the above modelling may enable further refinement of the licensing policy in the future.
2	Ensuring that rivers and wetlands are not adversely affected by abstraction.	1) Promote 'in-river needs' study.	Agency Wildlife Trusts *FERm*	R			*	*		Following a national review of current methodologies for assessing in-river needs, further work was undertaken by the Resource Assessment and Management Group (as part of the Abstraction Licensing Review). This work has provided a basic methodology to assess the environmental flow requirements of rivers, and will form part of the production of the CAMS for this area, due for publication in March 2003. It is unlikely that detailed in-river needs studies for sites within this area will be undertaken in the next five years.
		2) Produce WLMPs for Berry Fen, Little Paxton Pits and St Neots Common.	Agency English Nature IDBs MAFF *FDm*	7	*	*				Complete.
		3) Develop Implementation Action Plan for WLMPs.	Agency English Nature IDBs Landowners *FDm*	tbd		*	*	*	*	To fulfil the requirements of MAFF High Level Target 10 for WLMPs, Implementation Action Plans must be finalised for all European sites by March 2002 and for all other SSSIs by March 2003.

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
2	Continued	4) Encourage Anglian Water Services (AWSL) to complete investigations into the impact of abstraction on sites designated by the Habitats Directive.	AWSL Agency English Nature *WRm/FERm*	R		*				This activity refers to the Ouse and Nene Strategic Studies, which examined the impacts on sites of nature conservation importance of changing water abstraction patterns at Offord on the Great Ouse (and Wansford and Duston on the Nene). The studies were completed in 2001, but have led to a new activity (see below).
		5) NEW ACTIVITY: Carry out follow up investigation modelling of the impacts of a range of abstraction scenarios at Offord and Brownshill on the Ouse Washes and The Wash.	AWSL Agency English Nature *WRm*	R		*	*	*	*	These sites are identified in the AMP3 programme of work for 2000-2005. However, the target completion date is March 2004, to tie in with the deadline for Habitats Directive Stage 3 (Appropriate Assessment).
		6) Introduction of the proposed river gauging station at Brownshill, subject to a feasibility study and funding.	Agency *WRm*	tbd		*	*	*	*	The feasibility study has been completed for an ultrasonic flow gauging station that would improve our knowledge of flows in the Bedford Ouse system, particularly between Offord and Earith. At present there is no funding available, but it is possible that funding from Flood Defence may be available in the future. The project to construct the gauging station would extend beyond the time period of this LEAP.
		7) Continue to assess fully the impacts of development and mineral extraction on water resources.	Agency *WRm*	R	*	*	*	*	*	This is an ongoing activity because the Agency is a statutory consultee in the planning process. It is linked to action A28 in the Regional Water Resources Strategy: "The Agency will work with planners to identify opportunities for water efficiency in new developments".

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
2	Continued	8) NEW ACTIVITY: Produce CAMS for the Upper Ouse and Bedford Ouse	Agency *WRm*	R			*	*		One recommendation in the Government's review of the abstraction licensing system is that public information on the availability of water resources should be increased and published in the form of CAMS. These will describe abstraction policies, issues and future licensing strategy for areas and will be drawn up on consultation with interested parties. Work on the Upper Ouse and Bedford Ouse CAMS (our first) started in April 2001 and the document is due to be published in March 2003. More information can be found in the Agency publication 'Managing Water Abstraction – The Catchment Abstraction Management Strategy process", published in April 2001.
		9) NEW ACTIVITY: Continue to identify, prioritise and investigate rivers and wetland sites using the RSAP initiative.	Agency *WRm*	R			*	*	*	This is a new and ongoing initiative that is part of the Government's review of the abstraction licensing legislation (see chapter 2 for more detail). There are currently 5 sites in the LEAP area, and more sites could be added if new issues or information arise.
3	Ensuring that the operation of the Rivers Hiz and Oughton Support Scheme is fully meeting its objectives to alleviate low flows.	1) Review operation of the scheme during recent drought years.	Agency TVWCo *WRm*	R	*	*				We have reviewed the scheme and identified works that need to be done to enhance its effectiveness (see next activity). The final report by Posford Duvivier Environment describing the three year monitoring programme was received in January 2000, and this has been distributed to interested parties.
		2) Implement any changes identified as a result of the review.	Agency TVWCo *WRm*	30k			*	*		It is planned to spend £30k over 2 years (2001-2003) to complete works such as drilling observation boreholes, repair of a weir and removal of a gauging station. This activity may also include finalising a formal operating agreement between the Agency and Three Valleys Water Company (TVWCo).

b) Enhancing Biodiversity

No.	Issue	Activity	Responsibility	Cost (£k)	99/00	00/01	01/02	02/03	03/04	Comments
4	Failure of the Bedford Ouse and associated tributaries to achieve fish biomass targets.	1) Review the success of the barbel stocking.	Agency *FERm*	R	*					Complete. A report has been presented, and accepted by the AEG, on the River Ivel barbel population, following a restocking programme. The stocks will continue to be monitored in routine surveys.
		2) Review the success of the dace stocking.	Agency *FERm*	R	*	*	*			This investigation is still outstanding but is planned for 2001/02.
5	Aquatic habitats need to be restored or improved to benefit fish stocks and other associated wildlife.	1) Investigate further opportunities to create off-river refuges in the Bedford Ouse.	Agency Landowners Angling Clubs *FERm*	10-15 per project	*	*	*	*	*	We aim to identify specific locations for fisheries habitat improvements through liaison with angling clubs, landowners and the Bedford Flood Defence Team. A potential site has been identified near Brownshill Staunch, but has been put on hold due to its position in the floodplain and the associated flood defence concerns and costs. The site may be reassessed in the future if these matters can be resolved.
		2) Assess fish populations in tributaries and backwaters of the Bedford Ouse, and identify areas where habitat may be the limiting factor in the failure of the fishery to reach a healthy sustainable level.	Agency Landowners Angling Clubs *FERm*		*	*	*	*	*	We aim to identify specific locations for fisheries habitat improvements through liaison with angling clubs and landowners. Our 2000/01 fisheries capital project on the River Ivel at Biggleswade was cancelled after significant preparatory work due to a landowner's refusal.
6	River and floodplain habitats are degraded.	1) Creation of a large reed-bed adjacent to the River Great Ouse at Over and Willingham.	English Nature County Wildlife Trust Cambridgeshire County Council Agency Hanson Aggregates RSPB IDBs *FERm*	3	*	*	*	*	*	The creation of this reedbed will contribute to both biodiversity objectives and the 'Wet Fens for the Future' project. This is an ongoing , long term project. Costs shown relate to Agency staff time only.

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
6	Continued	2) Identify suitable sites for river and floodplain restoration in consultation with countryside management organisations.	Agency Ivel Valley Countryside Project Local Authorities IDBs Countryside Management Groups Wildlife Trusts *FERm/FDm*	tbd	*	*	*	*	*	On-going. Capital partnership projects and enhancements during routine maintenance works contribute to providing sustainable biodiversity by restoring degraded habitats. The Catchment Flood Management Planning process, which is being supported by MAFF and due to commence at the end of 2001, could make a significant contribution to the identification of potential floodplain restoration sites.
		3) Seek further environmental enhancement in river maintenance and capital operations.	Wildlife Trust English Nature Interested environmental and conservation parties Agency IDBs *FERm/FDm*	10	*	*	*	*	*	Ongoing, as appropriate opportunities are taken to enhance biodiversity and mitigate against impacts of flood defence works. The flood defence capital project, known as 'Package 10', includes work at Bedford, Ellington and Spaldwick, St Ives and Hemmingford, over the next 3 years. The conservation of habitat and species is paramount to the works, and improvement opportunities will also be sought. We have an input into all the dredging operations, for example the recent works on the Woke Holm at Cardington, to address the angling concerns.
7	Houghton structures require refurbishment to maintain river levels in line with WLMP recommendations.	1) Refurbish weirs: Fischers Dyke Rymers Old Mill (No 3) Trout Stream (No 5)	Agency English Nature MAFF *FDm*	135	*					Completed February 2000.

c) Enjoyment of the Waterways

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
8	There is a lack of public access to the River Great Ouse for recreational activities.	1) Provide canoe portage facilities around navigation structures.	Agency British Canoe Union Landowners *FERm*	10				*		The locations of canoe portage facilities will be decided in consultation with interested parties, including the British Canoe Union, Canoe Access Officers, etc.

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
8	Continued	2) Provide public slipway facilities.	Landowners Local Authorities Agency *FERm*	u/k	*	*	*	*	*	Local council has slipways at St Neots, Huntingdon and St Ives. Access is also available through numerous marinas. The Agency has little land in the area that is suitable for use. The launch of unregistered craft from slipways is of concern.
		3) Investigate opportunities for walking and improved access for other water-based activities, including angling.	Agency Local Authorities Landowners *FERm*	5-10 per project	*	*	*	*	*	We have collaborated with Ivel Valley Countryside Project on a number of waterside access initiatives, in particular the extension of the Ouse Valley Way upstream to Bedford. We have installed 9 disabled angling platforms at 3 river locations on the Bedford Ouse. We created a conservation pond on an Agency-owned site at Brampton.
		4) **NEW ACTIVITY:** Investigate opportunities for providing additional and larger mooring facilities.	Landowners Local Authorities Agency *FERm*							These facilities are required to accommodate visiting narrow boats using the reciprocal Agency/BW Gold Licence, that allows access to almost all navigable waterways in the country.
9	The impact of Cardington Canoe Slalom Channel on the ecology of surrounding watercourses.	1) Formulate procedures for booking and usage of the slalom course.	Bedford Borough Council Agency Users *FERm*	u/k						
		2) Monitor to determine the impacts and inform users of potential solutions.	Agency	R	*					Complete
		3) Determine minimal actual flows for canoeists.	*FERm*	R	*					Complete
10	Traffic congestion at locks during the summer.	1) Lengthen St. Neots (Paper Mills) Lock.	Agency *FERm*	250			*			The timing of these medium-term projects will depend on the priority of other navigation projects and finance available. Offord Lock has land ownership issues. The Agency is in negotiations with the developers of the Island site with a view to dedicating sufficient land to enable the lock enlargement to proceed
		2) Lengthen Offord Lock.	Agency *FERm*	250						

No.	Issue	Activity	Responsibility	Cost (£k)	99/00	00/01	01/02	02/03	03/04	Comments
11	Vandalism of Agency lock structures.	1) Investigate security mechanisms for lock slackers.	Agency GOBA CMIF IWA *FERm*	10	*	*				Ongoing.
		2) NEW ACTIVITY: Increase weekend enforcement activities and police liaison to combat vandalism and criminal damage.	Agency *FERm*	R	*	*	*	*	*	Ongoing.
24	NEW ISSUE: There is a lack of navigation facilities on the Bedford Ouse	1) Locate suitable sites for providing facilities such as water points and pump-out stations.	Agency *FERm*	40 per facility			*	*	*	We will be consulting with GOBA, IWA and CMIF to identify appropriate locations and funding.

d) Management and Disposal of Waste Material

No.	Issue	Activity	Responsibility	Cost (£k)	99/00	00/01	01/02	02/03	03/04	Comments
12	Public concern over brick making and waste disposal sites in the Marston Vale.	1) Identify the factors giving rise to environmental complaints.	Agency Local authority Health & Safety Executive (HSE) Companies concerned	R	*	*	*	*		Ongoing. No progress has yet been made on this project as it has been allocated a low priority in business planning activities. There is unlikely to be any progress on this issue this year either as resources are not available. It will probably be started in 2002/03.
		2) Identify a strategy to ameliorate the factors giving rise to the complaint.		tbd		*	*	*	*	These activities cannot be progressed until 1) above is complete.
		3) Implement the identified strategy.	*EPRm/EPLm*	tbd			*	*	*	
13	The scale of misuse of exempt waste management sites is unknown.	1) Undertake a survey of waste contractors and those involved in the management of waste, to determine the current level and type of usage at exempt sites.	Agency Waste Contractors Landowners Local Authorities	R	*	*	*	*		No progress has been made on this issue due to lack of resources and other priorities. Legislation on exemptions is being reviewed and it is likely that fees, charges and a stricter scrutiny of registrations will be put in place in the future.
		2) Identify a strategy to bring the scale of misuse under control.	*EPRm*	tbd		*	*	*		Strategy will be dependent on introduction of new regulations.

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
13	Continued	3) Commence enforcement action where the circumstances justify such action.	Agency *EPRm*	tbd			*	*	*	Ongoing. This is part of our normal duties, and action will be taken where appropriate. For example: recent case against A5 skips for operating a transfer station without a licence.
14	There is a lack of information on the land spreading of wastes.	1) Investigate the extent of land spreading of wastes now and possible increase in the future.	Agency Waste Disposal Contractors Landowners Waste Producers	R		*	*	*		No progress to date.
		2) Identify a strategy to ensure the suitability of land spreading within the LEAP.		tbd			*	*		No progress to date.
		3) Implement the identified strategy.	*EPRm*	tbd			*	*	*	

e) Risks to Water Quality

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
15	Eutrophication of Grafham Water and the Rivers Great Ouse, Ivel and Hiz.	1) Install phosphate stripping at the following STWs: St. Neots, Huntingdon, St Ives, Uttons Drove, Letchworth Hitchin, Clifton, Poppy Hill, Biggleswade, Sandy and Flitwick STWs by 2005.	AWSL	#	*	*	*	*	*	The Urban Wastewater Treatment Directive requires nutrient removal at STWs of over 10,000 Population Equivalent that discharge to, or affect, a designated sensitive area. The work will be carried out by AWSL under the AMP3 programme.
		2) Investigate further ways to reduce eutrophication.	Agency *EPLm*	tbd	*	*	*	*	*	The National Eutrophication Strategy was released on 24 August 2000. The strategy document, *Aquatic eutrophication in England and Wales: a management strategy*, was developed after lengthy consultation, and details the Agency's intended approach on reducing the harmful effects excessive amounts of nutrients - particularly phosphorus and nitrogen - can have on the aquatic environment. A suite of pilot eutrophication control action plans (ECAPs) is to be introduced in 2001, comprising of 11 sites in England and Wales, covering a range of different water body types, trophic states and local issues.

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
16	A number of river stretches fail to meet their River Ecosystem Targets.	1) Continue routine monitoring at: New Inn Brook. Millbridge/Common Brook. River Kym. Brampton Brook. Alconbury Brook	Agency *EPRm*	R	*	*	*	*	*	New Inn Brook: River stretch now compliant with River Ecosystem Target. Millbridge/Common Brooks: Still non-compliant due to low summer dissolved oxygen levels. Non-compliance is due to low river flows. River Kym: River stretch now compliant with River Ecosystem Target. Brampton Brook: Failure due to low dissolved oxygen levels. Non-compliance due to low river flows, but AMP3 scheme for Brampton STW will help prevent future RQO failure (target date 2005). Alconbury Brook: Improved compliance against dissolved oxygen standards. This is a routine task carried out as part of our normal day-to-day work, but we will continue to report areas of non-compliance.
17	Contamination of potable water supply by nitrates.	1) Manage the application of fertilisers and manures to agricultural land within NVZs, through implementation of statutory Action Programme Measures, to reduce nitrate pollution.	Farmers and their advisers *EPRm*	tbd		*	*	*		This is a routine task carried out as part of our normal day-to-day work. However, it should be noted that all of these activities have been delayed by restrictions relating to Foot and Mouth Disease.
		2) Visit all farms within NVZs to assess farmers' compliance with, and to enforce, Action Programme Measures.	Agency *EPRm*	R	*	*	*	*	*	
		3) Monitor and examine data collected to assist with the review of NVZ designations.	DETR MAFF Agency *EPLm*	R	*	*	*	*	*	
		4) Install nitrate removal plants.	TVWCo	#	*	*	*			These actions are under the water company's control and budget.
		5) Blending with low nitrate water at water treatment works.	TVWCo	#	*	*	*			

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
18	Identification and remediation of contaminated land.	1) Investigate the impact of leachate at Flitwick.	Agency Local Authority *EPLm*	18	*					An investigation was carried out by the Agency in February 2000. This showed that leachate had impacted on groundwater some 800m from the site.
		2) Undertake remediation at Flitwick, if required.	Agency Local Authority *EPLm*			*	*	*		A planning consent has now been issued so that the site can be developed. The Agency requires a remediation scheme as a condition of this development.
		3) Liaise with local authorities to identify contaminated land and advise on appropriate action.	Agency Local Authority *EPLm/EPRm*							The extent, cost and timing of these activities are not known as the activities are still ongoing. They form part of the Agency's normal duties under the Contaminated Land Regulations.
		4) Regulate the 'clean up' of land already identified as contaminated.	Agency Local Authorities Landowners *EPLm*							
		5) Cause polluters to 'clean up' contaminated land.	Agency Local Authorities Landowners *EPLm*							

f) Need For Monitoring and Further Investigation

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
19	Public concern over the findings of the Eurohazcon Study.	1) Support any further research that may be carried out in relation to Elstow and Flitwick or for other known hazardous waste landfills in the area.	Agency Local authorities Health Authorities DETR *EPRm/EPLm*	1	*					Following a series of liaison meetings with Bedfordshire County Council and Befordshire Health Authority this is has been addressed. A report was produced by Bedfordshire CC. Research into the wider issues is ongoing and is being conducted by the Agency and DETR.
		2) Continue to provide support for the Bedfordshire Eurohazcon Officers Group.	Agency *EPRm*	1	*	*				The Group has completed its work.

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
20	The bacteria which causes Potato Brown Rot/Tomato Bacterial Wilt has been identified in the Rivers Hiz, Ivel and Great Ouse.	1) Removal of host plant *Solanum dulcamara* (Woody Nightshade), where this is growing with its roots in a watercourse, by controlled spraying with the herbicide Glyphosate.	MAFF	#	*	*	*			Abstraction data for rivers in the area was sent to MAFF in April 2001. Consent to treat riverbanks with herbicide during June-July and August-October was granted in March 2001.

g) Improving Flood Defences

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
21	Implementation of the Bye Report recommendations.	1) Create a Flood Defence Asset Database.	Agency *FDm*	13.5	*					Complete.
		2) Review flood monitoring, forecasting and warning arrangements for the Bedford Ouse area that was affected by flooding at Easter 1998. This may lead to the identification and implementation of improvements.	Agency Local Authorities Parish Councils *FDm*	R	*	*	*	*	*	This is an ongoing activity. To date: Necessary telemetry improvements have been identified (see item 22.4 below). Flood Risk Maps have been revised and AVM offered to all those at risk in Shefford, the Hemingfords, Kempston, and the Mill Quay, Bridge Terrace and Victoria Terrace areas in St Ives. An improved forecasting service for Kempston will be in place by September 2001. Areas to be reviewed are Alconbury and Alconbury Weston, St Ives and Hemingfords South, Godmanchester, Riseley, Bedford to Eaton Socon, Huntingdon to Houghton, Offord to St Neots, Fenstanton, Brampton and Kimbolton.
22	Review of the current standards of flood protection.	1) Carry out feasibility studies to identify flood defence improvements at Spaldwick and Godmanchester, and standards of service at Swavesey, Earith, Buckden, Blunham and Little Paxton.	Agency Local Authorities *FDm*	30	*	*	*			Standards of flood protection at Blunham and Little Paxton have been reviewed; no justification was found for improvement work pre-feasibility studies. Standards of flood protection have been reviewed and pre-feasibility studies are to be carried out at Earith and from Biggleswade to upstream of Blunham. Pre-feasibility studies for improvement works at Spaldwick and Godmanchester are complete. Standards of flood protection at Swavesey, Buckden and Parsons Drove Drain will be reviewed in 2001.

No.	Issue	Activity	Responsibility	Cost (£k)	99/ 00	00/ 01	01/ 02	02/ 03	03/ 04	Comments
22	continued	2) Implement flood defence improvements as identified in above studies.	Agency *FDm*	tbd				*	*	This is dependent on the outcomes of the above studies.
		3) **NEW ACTIVITY:** Assess feasibility of flood defence improvements at Alconbury and Alconbury Weston, St Ives and the Hemingfords, Riseley, Godmanchester, Earith to St Ives, and Bury Brook.	Agency Local Authorities Parish Councils *FDm*	tbd		*	*	*		Pre-feasibility and feasibility reports are required, to assess the viability of improvements to existing flood defence standards of service.
		4) **NEW ACTIVITY:** Carry out flood defence improvement works at Bedford and renovation of St Ives Staunch.	Agency *FDm*				*	*	*	These works will be carried out as a result of feasibility studies.
		5) **NEW ACTIVITY:** Carry out flood warning telemetry improvements at Kempston and Clapham	Agency *FDm*				*	*	*	Pre-feasibility studies identified that flood defence improvements would not be viable and that flood warning improvements should be considered.
		6) **NEW ACTIVITY:** Implement flood defence repairs, or replacement of structures, as recommended by detailed Asset Inspections, as a minimum to maintain current standards of protection.	Agency Local Authorities IDBs Riparian Owners *FDm*	tbd		*	*	*	*	Our Flood Defence asset survey has identified a need for various repair/renovation works.
23	Non Main River flooding.	1) Investigate schemes and maintenance to alleviate flooding.	Local Authorities Riparian owners IDBs *FDm*	#	*	*	*	*	*	Ongoing.
		2) Support local authorities in encouraging riparian owners to carry out maintenance works under the Land Drainage Act.	Local Authorities Riparian owners IDBs Agency *FDm*	R	*	*	*	*	*	Ongoing. This forms part of our routine monitoring and liaison work.

4.0 LEGISLATION

Much of our work is governed or influenced by statute. The following is a brief summary of some of the more recent legislation that must be followed or taken into account by the Agency and its customers.

4.1 WASTE MINIMISATION ACT 1998

In the pursuit of the goal of an overall reduction in the quantity of waste produced nationally, the Government passed the Waste Minimisation Act (1998). This will confer extensive powers on Local Authorities to assist in the reduction of commercial, industrial and household wastes. In addition, the Act enables Local Authorities to play a significant role in the reduction of wastes produced by commercial activities and households in their areas.

4.2 THE LANDFILL DIRECTIVE

The adoption of the Landfill Directive in April 1999 means that it must now be transposed into UK law by July 2001. One of the key provisions of the Directive is the progressive diversion of biodegradable wastes away from landfill. Using 1995 as a baseline year, 25% will be diverted within 5 years of the implementation date, 50% within 8 years, and 65% within 15 years.

The UK may be allowed to extend by 4 years the period within which we have to comply because of our heavy reliance on landfill as a waste management option (currently more than 80%). This will mean that the UK will have effective implementation dates of 2010, 2013 and 2020 to achieve the 25%, 50% and 65% diversion targets respectively.

Compliance with the Directive will see a major shift in the way we approach the management of wastes in the UK. There will be a reducing use of landfill in favour of recycling at materials recovery facilities, composting at home and at Local Authority sites, as well as the more extensive use of incineration with energy recovery facilities. A system of tradeable permits will be introduced for landfilling of Local Authority biodegradable municipal wastes, to facilitate an increase in non-landfill waste management.

Estimates of the quantities of wastes that will need to be diverted (even with an assumption of no growth in municipal waste) indicate that, even if the practical limits for recycling are achieved, more incineration with energy recovery facilities may still be required in future to meet the targets.

4.3 THE PCB REGULATIONS 2000

In 1990, at the Third International North Sea Conference, all North Sea states (including the UK) agreed to phase out and destroy identifiable Polychlorinated Biphenyls and associated chemical equivalents (PCBs) by the end of 1999.

In September 1996, the EC Directive 96/59/EC on the disposal of PCBs and Polychlorinated Terphenyls (PCTs) was adopted. In the UK, it was implemented on 4 May 2000 as The Environmental Protection (Disposal of Polychlorinated Biphenyls and other Dangerous Substances) (England and Wales) Regulations 2000 - SI 2000 No 1043 (The PCB Regs) for England & Wales.

PCBs have long been recognised as posing a threat to the environment because of their toxicity, persistence and tendency to bioaccumulate (i.e. once they are in the environment or in animals or humans it is very difficult to get rid of them). Although the use of PCBs has been reduced greatly since the 1970s, when legislation first sought to control their use and supply, it is recognised that those still remaining in existing equipment pose a continuing environmental threat.

In order to comply with the regulations, all contaminated equipment containing more than 50 parts per million (ppm) and a volume of PCB material in excess of 5 litres needed to be registered with the Agency by 31 July 2000. A date for (and method of) eventual disposal had to be indicated on the registration form. If there was a higher concentration of PCBs, the equipment needed to be decontaminated to an acceptable level (below 500 ppm) or disposed of before 31 December 2000.

4.4 COUNCIL DIRECTIVE CONCERNING INTEGRATED POLLUTION PREVENTION AND CONTROL (96/61/EC)

The Integrated Pollution Prevention & Control (IPPC) EC Directive 96/61/EC has been implemented into UK law by the provisions of the Pollution Prevention and Control Act 1999. The introduction of the supporting regulations will set out a Europe-wide policy to improve the standard of environmental protection. IPPC is similar to the IPC regime operated by the Agency since 1991, but regulates more industrial sectors and takes into account more environmental concerns than IPC, including energy conservation and the return to the original condition of the sites when activities cease.

In accordance with sustainable development, IPPC consists of preventing, reducing and eliminating pollution. It will do this by giving priority to pollution prevention at source and ensuring prudent management of natural resources, in compliance with the 'polluter pays' principle. The Directive covers emissions to all media (air, land & water), as well as heat, noise and vibration, energy efficiency, environmental accidents and site remediation.

The Directive refers to integrated control and prevention of pollution from 'installations' where one or more of the following categories of activities, subject to certain capacity thresholds, are carried out:

- **Energy industries** – e.g. power stations, oil and gas refineries;
- **Production and processing of metals** – ferrous and non-ferrous;
- **Mineral industry** – e.g. cement works, glass works;
- **Chemical industry** – organic, inorganic, pharmaceuticals;
- **Waste management** – e.g. landfill sites, any installation disposing of hazardous waste, some installations recovering hazardous waste, IPC authorisations for sewage sludge incinerators; and
- **Other activities** – e.g. timber pulp production, slaughterhouses, food/milk processing, intensive pig/poultry units, organic solvent users, and carbon production.

The Agency welcomes IPPC as a more holistic approach to environmental management and regulation and will continue working in partnership with industry to achieve the aims of IPPC.

4.5 CONTROL OF MAJOR ACCIDENT HAZARDS REGULATIONS (SI 743) 1999 (COMAH)

These Regulations came into force on 1 April 1999 and apply to operators with specified quantities of defined dangerous substances on their site(s). They will require the operators to take all measures necessary to prevent major accidents. There are two thresholds for dangerous substances held at any particular location. For establishments with quantities above the higher threshold, COMAH places more duties on the operator, including a requirement to prepare a safety report on which the competent authority for COMAH must give its conclusions to the operator. The competent authorities which enforce COMAH are the Health and Safety Executive and the Agency.

4.6 THE ACTION PROGRAMME FOR NITRATE VULNERABLE ZONES (ENGLAND & WALES) REGULATIONS 1998

Under the EC Nitrate Directive (91/676), the UK Government has, to date, designated 68 Nitrate Vulnerable Zones (NVZs) throughout England and Wales. The zones cover areas of land draining to ground or surface waters used for public drinking water supply that have been, or are likely to be, affected by agricultural nitrate pollution. In order to reduce the risk of further nitrate pollution, farmers operating within these zones must follow a set of mandatory rules that control the rate and timing of the application of fertilisers and manures. The rules, known as the Action Programme Measures, came into force on 19 December 1998 with the issue of the Action Programme Regulations. The Agency has the statutory responsibility for assessing farmers' compliance with these Regulations and does so by visiting NVZ farms.

4.7 SECTION 57 OF THE ENVIRONMENT ACT 1995 'PART IIA : CONTAMINATED LAND'

Contaminated land in a general sense would include any site where non-natural materials, or materials in concentrations above naturally occurring levels, have been introduced and are present within the ground. However, this definition would incorporate virtually the whole of the UK, as most sites could be shown to have traces of man-made materials present within them. Section 57 of the Environment Act 1995 has therefore introduced a legal definition of 'contaminated land'. It introduces Part IIA of the Environmental Protection Act 1990, and came into force through the Contaminated Land Regulations on 1 April 2000. The legislation provides a new legal framework for dealing with contaminated land and focuses on sites that could cause problems in their current use. Under this regime, the Agency will have new duties and powers to complement those of the Local Authorities.

4.8 ANTI-POLLUTION WORKS REGULATIONS 1999

Works Notices can be issued under these regulations, which were brought in as part of the Environment Act 1995 but came into force on 29 April 1999. They give Agency officers the option of serving a notice on a site owner or operator to conduct works to prevent pollution. Failure to comply can result in a fine of £20,000 and/or three months' imprisonment.

4.9 GROUNDWATER REGULATIONS 1998

The Groundwater Regulations 1998 were fully implemented on 1 April 1999. The purpose of the regulations is to prevent pollution of groundwater, with reference to two lists of substances. List I substances are the most toxic, and entry to groundwater must be

prevented; List II substances are less toxic, but could still be harmful in large concentrations, and entry to groundwater must be controlled to prevent pollution.

The regulations affect a wide range of sectors involved in the manufacture, storage, handling, or disposal of listed substances. Disposal activities, which may lead to the entry of listed substances to groundwater and which are not currently controlled by other legislation, require authorisation from the Agency. Agriculture is therefore quite heavily affected by the regulations; previously uncontrolled disposals of pesticide washings and sheep dip to land now require authorisation, to ensure the activity will not pollute groundwater. Activities that may result in an unintentional discharge of listed substances (e.g. handling or storage), will be controlled by adherence to Codes of Practice and new powers to serve notices to prohibit or condition an activity.

4.10 DETR REVIEW

The Agency has actively contributed to the Government's review of the abstraction licensing system and a revision of the Water Resources Act 1991. In March 1999, having considered over 200 responses to a consultation paper entitled 'A Review of the Water Abstraction Licensing System in England and Wales', the Government's final decisions were published in 'Taking Water Responsibly: Government decisions following consultation on changes to the abstraction licensing system in England and Wales'. Amongst other things, the proposed changes provide the Agency with additional tools for the conduct of its duty to manage water resources. These will include measures to strengthen protection for wildlife and important habitats, and increase the scope and public availability of information on water resources, in the form of Catchment Abstraction Management Strategies (CAMS). These CAMS (which are also referred to in Chapter 2), will be separate from LEAPs, and will be drawn up in consultation with interested parties. The production of CAMS does not require a change in legislation so the Agency has implemented a programme that included national trials of the concept in 1999, formal consultation in 2000 and production of local CAMS commencing in 2001. Our first CAMS will cover the Upper Ouse and Bedford Ouse catchments.

Some of the other proposed changes require a change in the law, and a draft Water Bill was published for consultation on 7 November 2000. Progress of the Bill is dependent on Parliamentary time.

A full summary of the changes proposed are set out in the above document, which is available from the Department of the Environment, Transport and Regions, DETR Free Literature, PO Box 236, Wetherby, West Yorkshire, LS23 7NB (Tel: 0870 122 6236).

4.11 HABITATS DIRECTIVE (92/43/EEC)

The Council of European Communities adopted the Habitats Directive on 21 May 1992, with the aim of sustaining European Biodiversity and protecting rare and threatened habitats and species. The UK Habitats Regulations 1994, implementing the Directive, apply to SACs and SPAs, the latter being designated under the Birds Directive 1979.

The Agency has two main responsibilities under the Habitats Regulations. The first is to ensure that any new consents we issue, or projects instigated by us, do not have an adverse effect on the integrity of a European site, either on their own or in combination with others. The second is a requirement to review all existing consents; the timetable for this is currently under review. This has implications for all functions within the Agency.

The SAC moderation exercise, in which English Nature were instructed to review the sites designated, did not add any extra sites or features in the Bedford Ouse LEAP area.

4.12 COUNTRYSIDE AND RIGHTS OF WAY ACT 2000

The Countryside and Rights of Way Act 2000 is a major step forward for both wildlife conservation and access to the countryside. It will extend the public's ability to enjoy the countryside whilst also providing safeguards for landowners and occupiers. It will create a new statutory right of access and modernise the rights of way system, as well as giving greater protection to SSSIs, providing better management arrangements for Areas of Natural Beauty and strengthening wildlife enforcement legislation.

The Agency already has statutory duties to further and promote conservation and access to the countryside, and we have been at the forefront of helping to enhance wildlife and promote access in all our activities. However, making this new Act work and consolidating our present efforts, will involve a partnership approach between a range of statutory bodies, including the Agency, landowners and managers.

4.13 PROHIBITION OF KEEPING OR RELEASE OF LIVE FISH (SPECIFIED SPECIES) ORDER, 1998

In November 1998, The Prohibition of Keeping or Release of Live Fish (Specified Species) Order was made under the Import of Live Fish (England & Wales) Act 1980. It imposes additional restrictions on any person intending to introduce certain non-native species of fish, including, amongst others, catfish, grass carp and land-locked salmon.

To date 42 fisheries in Central Area have been assessed, 10 of which are located in the Bedford Ouse Area. Five have been approved, four given temporary licences and one refused.

4.14 PLANNING LEGISLATION AND GUIDANCE

DETR Circular 02/99: Environmental Impact Assessment (SI 293) 1999

Changes to the 1988 legislation mean that more development proposals will require Environmental Impact Assessment (EIA) under the legislation stemming from the revised EC Directive. Where a scoping opinion is requested of the Local Planning Authorities (LPAs) by a developer, the Agency will be consulted and be given the opportunity to advise on key issues of concern that should be addressed via the EIA. Overall, the new requirements make the EIA process more rigorous and the Local Authority more accountable.

DETR Circular 03/99: Planning Requirement in respect of the Use of Non-Mains Sewerage incorporating Septic Tanks in New Development

This legislation requires that, where concerns for the effectiveness of septic tanks and the like exist, LPAs liaise directly with the Agency to receive advice upon the suitability of proposals prior to formal registration. This may involve the Agency in providing an assessment from its own resource for 'Outline Applications'. An exact involvement is yet to be determined by both the LPA and the Agency.

Planning Policy Guidance (PPG) Note 10: Planning and Waste Management

The DETR published this long awaited guidance note in October 1999. It is the first comprehensive framework for local and regional government on the preparation of Waste Local Plans and planning decisions for waste facilities, and should be read in conjunction with the new National Waste Strategy. The guidance provides advice about how the land-use planning system should contribute to sustainable waste management through the provision of the required facilities. It directs the Agency's involvement with Regional Technical Advisory Bodies that will receive regional SWMAs prepared by the Agency. These assessments will include waste arisings data and advice on disposal capacities and the selection of the best practicable environmental options for waste management. The Agency will help monitor and enforce planning conditions, while Waste Planning Authorities report any suspected breaches of licence conditions. This definition of our respective roles will have resource implications for both Planning Liaison and Environment Planning within the Agency. The preparation of waste management assessments has resource implications for Environment Planning in particular.

DETR PPG12: Development Plans

This confirms the procedure for preparation of Structure Plans and defines the new procedures for preparation of Local Plans. The confirmation of Structure Plan preparation means that the Agency's required involvement and status remains unchanged. However, the Agency no longer retains the role of statutory consultee for Local Plans and our involvement in their preparation will be decided by the LPA. This change in statute emphasises the importance of having a properly balanced involvement in both Structure Plans and planning applications. Accordingly, in order that we may fully participate in the proactive development controls of local planning, we must ensure that advice given, as a statutory consultee, is also wanted as a partner consultee.

DETR Draft PPG25: Development and Flood Risk

Although still in draft, PPG25: *Development and Flood Risk* is expected this year as guidance on flood risk from both rivers and the sea. Emphasis is on a precautionary approach to development in flood risk areas, in accordance with the principles of sustainable development and the likely impacts of climate change. The overall aim is to avoid inappropriate development in flood-risk areas and to ensure that new development does not lead to additional flood risk, through better co-ordination between land-use planning and the operational delivery of flood and coastal defences. It also considers the value of sustainable drainage systems in controlling run-off from new development throughout river catchments and not just in the floodplain. The susceptibility of land to flooding as a material planning consideration is advised and the importance of the Environment Agency's role in providing strategic advice on flood issues is highlighted.

4.15 LAND DRAINAGE EIA REGULATIONS (SI 1783) 1999

Changes to the 1988 Environmental Impact Assessment legislation in line with the 1997 EC Directive came into force in April 1999. The Agency is the competent authority for determining the need for and undertaking EIA for its own works. Only minor modifications to the consultation and appeal process have been made.

APPENDIX 1: WORK CARRIED OUT ROUTINELY BY THE ENVIRONMENT AGENCY

The Environment Agency has a number of roles and responsibilities, which it fulfils to protect and improve the environment. These include:

Water Quality:
- consenting to and charging for discharges to rivers
- responding to pollution incidents
- prosecuting polluters
- sampling water quality
- carrying out biological and bacteriological surveys
- setting water quality targets
- protecting groundwater quality

Flood Defence:
- maintaining free passage of water by dredging, bank trimming and rubbish clearance
- identifying and constructing flood defence works
- forecasting and warning of flood situations

Water Resources:
- measuring rainfall, river flows and groundwater resources
- licensing water abstractions
- promoting water efficiency and conservation measures

Fisheries, Ecology and Recreation:
- surveying the health and numbers of fish populations
- rescuing fish in emergency situations
- regulating fisheries licences
- protecting and enhancing natural riverine habitats, including banks and floodplains
- promoting public access to rivers and the general enjoyment of the riverside
- Navigation Authority for the day-to-day operation and management of the Great Ouse system

Planning:
- responding to planning application consultations
- promoting policies to protect and enhance the water environment in development plans
- ensuring that all development in or near rivers protects and enhances the water environment, by issuing Land Drainage Consents
- producing LEAPs to integrate the Environment Agency's work with activities being undertaken by other organisations

Integrated Pollution Control:
- regulating air quality by operating Integrated Pollution Control (IPC) for certain industrial processes
- authorising prescribed processes and ensuring operators comply with the pollution prevention and control standards laid down
- making appropriate checks to ensure IPC authorisations are being complied with, investigating any complaints and attending to serious pollution events
- regulating the holding, use and disposal of radioactive substances

Waste Regulation:
- licensing waste management activities through the imposition of appropriate conditions
- supervision of licensed activities and the operation of enforcement procedures
- regulating and monitoring the movement of Special Wastes, ie those that are considered dangerous to life and in need of cradle to grave monitoring
- the Registration of Waste Carriers, Waste Brokers and activities exempt from licensing
- collecting information about waste arisings, treatment and disposals to assist local authorities plan for future waste management in their areas
- administration and enforcement of Packaging Regulations and promotion of waste minimisation
- promotion of Duty of Care

General:
- promoting rivers and valuable natural assets
- making information available through the Environment Agency's Public Registers
- monitoring and enforcement action to ensure that all the above are implemented and complied with

APPENDIX 2: ABBREVIATIONS

AEG	..	Area Environment Group
AMP	..	Asset Management Plan
AVM	..	Automatic Voice messaging
AWSL	..	Anglian Water Services Ltd.
BAP	..	Biodiversity Action Plans
BW	..	British Waterways
CAMS	..	Catchment Abstraction Management Strategy/ies
CC	..	County Council
CMIF	..	Cambridge Marine Industries Federation
COMAH	..	Control of Major Accident Hazards
cSAC	..	candidate Special Area of Conservation
CSm	..	Customer Services Manager
DETR	..	Department of the Environment, Transport and the Regions
EC	..	European Community
ECAP	..	Eutrophication Control Action Plan
EEDA	..	East of England Development Agency
EIA	..	Environmental Impact Assessment
EPLm	..	Environment Planning Manager
EPRm	..	Environment Protection Manager
FDm	..	Flood Defence Manager
g/m²	..	grams per square metre
GOBA	..	Great Ouse Boating Association
GQA	..	General Quality Assessment
IDBs	..	Internal Drainage Boards
IPC	..	Integrated Pollution Control
IPPC	..	Integrated Pollution Prevention & Control
IVCP	..	Ivel Valley Countryside Project
IWA	..	Inland Waterways Association
km	..	kilometre
LA21	..	Local Agenda 21
LCA	..	Life Cycle Assessment
L(P)A	..	Local (Planning) Authority
LEAP	..	Local Environment Agency Plan
MAFF	..	Ministry of Agriculture Fisheries & Food
NVZ	..	Nitrate Vulnerable Zones
OFWAT	..	Office of Water Services
OVW	..	Ouse Valley Way
PCB	..	Polychlorinated Biphenyl
PCT	..	Polychlorinated Terphenyl
PPG	..	Planning Policy Guidance
ppm	..	parts per million
PWS	..	Public Water Supply
R	..	Revenue/Routine
RQO	..	River Quality Objective
RSAP	..	Restoring Sustainable Abstraction Programme
RSPB	..	Royal Society for the Protection of Birds
RTAB	..	Regional Technical Advisory Body
SPA	..	Special Protection Area
SSSI	..	Site of Special Scientific Interest
STW	..	Sewage Treatment Works
SWMA	..	Strategic Waste Management Assessment
Tbd	..	to be determined
TVWCo	..	Three Valleys Water Company
UK	..	United Kingdom
u/k	..	unknown
WISARD	..	Waste integrated systems for recovery and disposal
WLMP	..	Water Level Management Plan
WRm	..	Water Resources Manager
£k	..	thousand pounds

APPENDIX 3: AEG SUB-GROUP AND PROJECT TEAM MEMBERS

Representatives of the Great Ouse Area Environment Group (AEG)

Colin Clare	AEG Chairman
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