

local environment agency plan

Second Annual Review

OLD BEDFORD

INCORPORATING THE MIDDLE LEVEL & OUSE WASHES

SECOND ANNUAL REVIEW

JULY 2000



**ENVIRONMENT
AGENCY**

Old Bedford LEAP Annual Review

Map 1



ENVIRONMENT AGENCY

0 10km



Peterborough

Whittlesey

March

Chatteris

Ramsey

Sawtry

Warboys

Witchford

Sutton

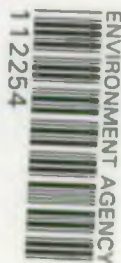
Earith

Ely

Plan Area

KEY

- Area Boundary
- Main River
- Middle Level Commissioners Main Drains
- 1 The Ouse Washes
- 2 Woodwalton Fen Conservation Area



EA-ANGLIAN

TF
00
TL

90

70

30

40

50

John Martin Sluice at Welmore Lake

Pictured right is the new John Martin Sluice at Welmore Lake. In the foreground are John Martin, after whom the Sluice is named in recognition of his lifelong commitment and service to flood defence, and Sir John Harman, the Agency Chairman.

The Rt Hon Gillian Shephard MP officially opened the Sluice in April 2000, pictured below.



VISION FOR THE LEAP AREA

Most societies want to achieve economic development to secure a better quality of life, now and in the future. They also seek to protect their environment. The concept of sustainable development tries to reconcile these two objectives. The Agency's remit is to contribute to making this concept a reality. As a statutory consultee in the Town and Country Planning process, we will encourage planned developments and infrastructure to be sustainable. Our Vision for the LEAP area also addresses a number of other aspects.

In the long-term (25 years) this Vision encompasses:

- developing partnerships with, for example, agriculture, industry, local authorities, environmental groups and educational establishments;
- regulating the movement, treatment, storage and disposal of controlled wastes to protect and enhance the environment, by setting and enforcing consistent standards for waste management practice;
- managing water resources in a sustainable way to balance the needs of the water environment with the overall demand for water from all sectors of the community;
- realising opportunities to improve the biodiversity and conservation value of the plan area; and
- maintaining and, if necessary and viable, improving flood protection along all Main Rivers.

More specifically and in the short-term (5 years) it encompasses:

- managing the Ouse Washes and associated watercourses to balance their flood defence, land drainage, water supply, fisheries and navigation roles within the constraints of designation as a candidate Special Area of Conservation, Special Protection Area and Site of Special Scientific Interest;
- supporting and developing sites likely to be identified under the Habitats Directive as Special Areas of Conservation, for example the Ouse Washes and Woodwalton Fen;
- resolving issues raised concerning waste management, and encouraging the development of waste minimisation initiatives;
- achieving an improvement in water quality, particularly where targets are not presently being met; and
- enhancing opportunities for recreational activities such as navigation, angling and walking.

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

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1.0 INTRODUCTION

This is the second annual review of the Local Environmental Agency Plan (LEAP) for the Old Bedford (incorporating the Middle Level and Ouse Washes) area.

1.1 THE ENVIRONMENT AGENCY

The Environment Agency (the Agency) is one of the most powerful environmental regulators in the world. It exists to provide high quality environmental protection and improvement, and has a wide range of duties and powers relating to different aspects of environmental management (see Appendix 1).

Our overall aim of protecting and enhancing the whole environment is contributing to the world-wide environmental goal of sustainable development. This has been defined as *'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'*. At its heart is the integration of human needs and those of the environment within which we live. We must anticipate risks and encourage precaution, particularly where impacts on the environment may have long-term effects or be irreversible.

1.2 LOCAL ENVIRONMENT AGENCY PLANS (LEAPs)

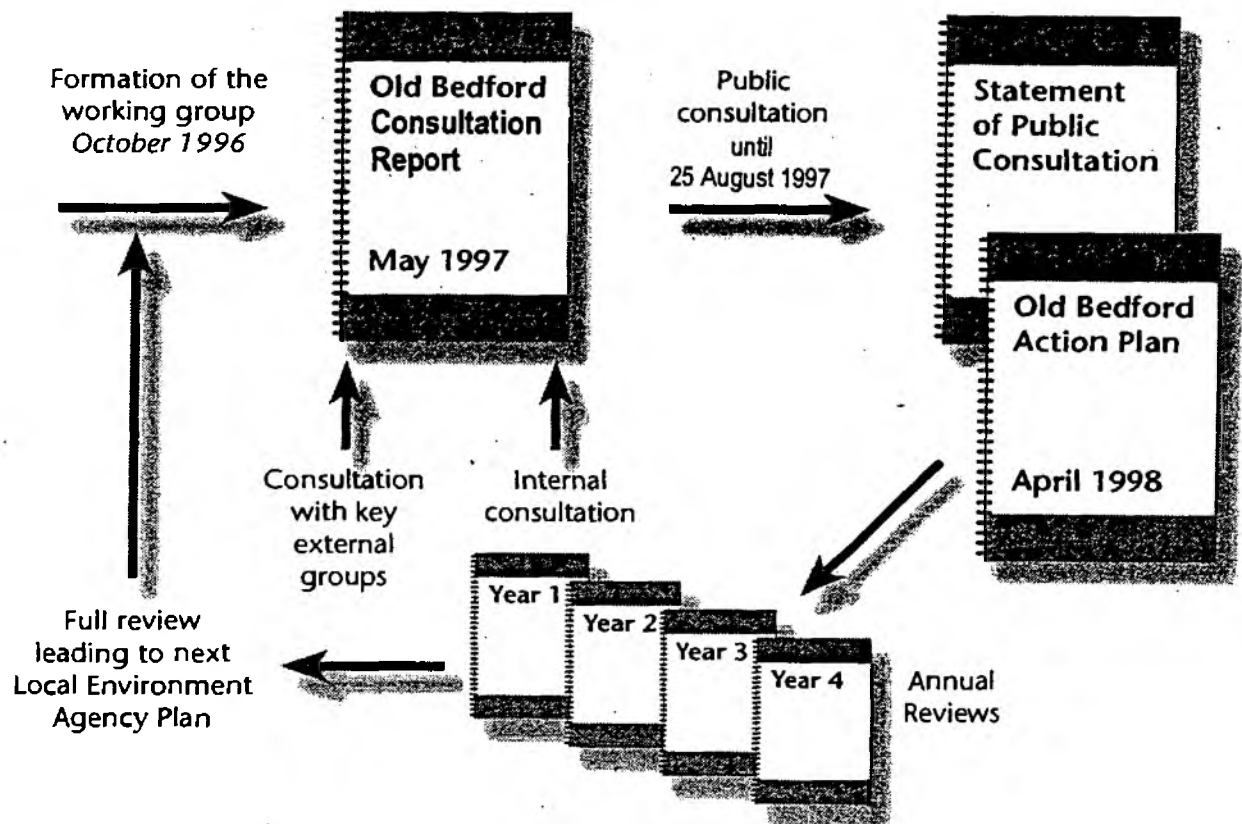
At the United Nations 'Earth Summit' in 1992, governments agreed that, in order to solve global environmental problems, local action is crucial. Agenda 21 is part of that global action plan, bringing together economic, environmental and social concerns into a 'blueprint' for a more sustainable way of life for everyone. The Agency is acting locally on two fronts. In addition to contributing to the Agenda 21 plans being produced by Local Authorities, by the end of this year we will 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, including a three-month period of public consultation to ensure that the views of our local customers are taken into account. The Consultation Report for the Old Bedford, incorporating the Middle Level and Ouse Washes (May 1997), described a Vision for the LEAP area, identified the local issues and was the focus for discussion. Consultees' views and Agency responses were published in the Statement of Consultation Responses (February 1998), prior to our preparation of the Action Plan. This was published in April 1998 and set out proposed actions for the Agency and its partners to deliver over a five-year period.

The First Annual Review of the Old Bedford LEAP (May 1999) reported on progress with activities and identified two new issues with related activities. In preparing the Second Annual Review, we have again consulted with representatives of the local community through the Area Environment Group.

In summary, 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 momentum of the activity programme is maintained and that the Plan continues to address relevant and significant issues in the LEAP area.

The LEAPs Process



2. THE LEAP AREA – An Environmental Update

2.1 INTRODUCTION

The Plan area is described in detail in the Old Bedford LEAP Consultation Report, and in summary in the Action Plan. The following is therefore a brief description of key factors only, with particular reference to the year in view.

Falling mainly within Cambridgeshire, one of the fastest growing counties in the country, the LEAP area contains some of the most important nature conservation areas and arable land in the UK. It comprises a combination of the Ouse Washes and the Middle Level river systems (see Map 1, inside front cover).

The Ouse Washes (32 km from Earith to Denver) were created in the 17th Century to prevent flooding of the low-lying fenland of the Middle and South Levels; they are now internationally recognised as a site for conservation of breeding and wintering birds and for their aquatic life. The system is described in more detail in Figures 1 and 2. Lying to the west of the Ouse Washes, the Middle Level is subdivided into 39 Internal Drainage Districts, most of which are administered by the Middle Level Commissioners (MLC). Almost 70% of the Middle Level is fenland and lies below mean sea level.

The climate is typical of East Anglia in that evaporation during the summer months normally exceeds rainfall, and water resources are limited.

2.2 DEVELOPMENT AND INDUSTRY

In the last year there have been few changes to the uses, activities and pressures described in the Action Plan. The planning application for the redevelopment of RAF Alconbury, which was refused by Huntingdonshire District Council (DC), is now the subject of an Appeal to the Secretary of State for the Environment, Transport and the Regions; the Public Inquiry is scheduled to begin on 3 October. The Council's Local Plan Review has also reached the Inquiry stage and the initial programme is nearing completion. At Elean Business Park in Sutton, the proposed straw burning power plant is now nearing completion.

Plans to create a large wetland/reedbed at the former Needingworth Aggregate Quarry, adjacent to the Plan area, are also progressing. Cambridgeshire County Council has accepted an application to modify the existing low level restoration proposals, and we are dealing with an associated application for a licence to abstract water from the River Great Ouse, when there are flood flows during the winter period, to maintain water levels. We have completed our technical determination of the application, and arrangements for access are being finalised.

As reported last year, on 17 March 1999 Fenland District Council launched a waste minimisation club called 'Business for Sustainability Network'. This has now become part of a 'Business and Environment Support Programme for the Fens Area'. The programme brings together Fenland DC, Peterborough Environment City Trust (PECT), FenBet, the Environment Agency, Greater Peterborough Chamber of Commerce Training & Enterprise, Business Link and St Johns Innovation Centre. The aim of the Programme (dependent on European Transitional Funding being obtained) is to provide a coherent 'one

Figure 1



ENVIRONMENT AGENCY

The Ouse Washes and Barrier Banks

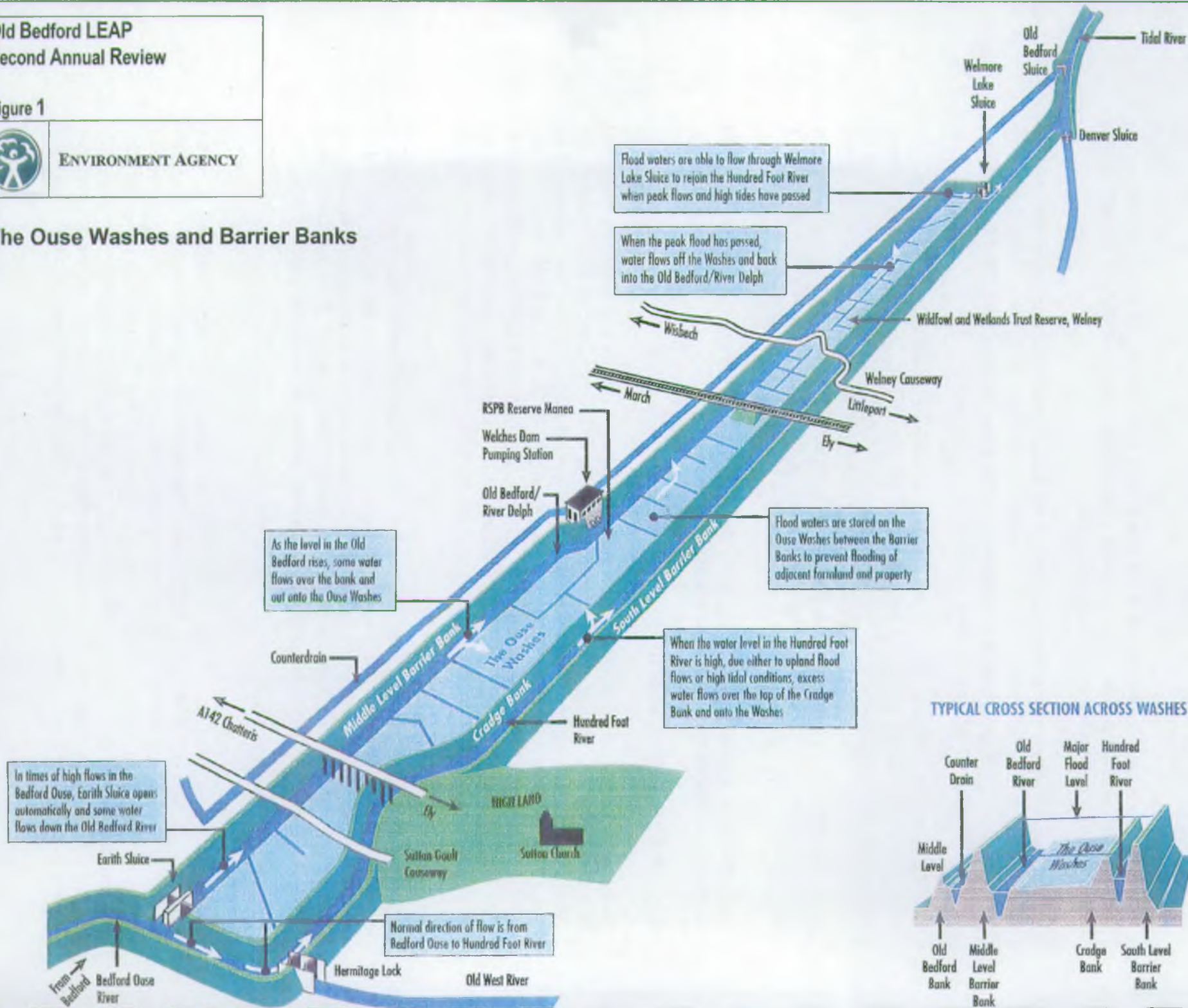


Figure 2



ENVIRONMENT AGENCY



stop shop' service to help businesses improve their overall performance through social, economic and environmental improvements.

There will be a series of Waste Minimisation workshops, starting in September 2000, offering practical advice and best practice guidance for local businesses. These workshops will be delivered via the Fenland Business Centre and PECT.

The Agency continues to advise and educate waste producers on the efficient use of resources, how to comply with relevant legislation and how to manage environmental impacts.

2.3 TRANSPORT

Regional Planning Guidance for East Anglia (1991) recognises that, with several port connections to the European mainland, the region serves as a gateway to Europe. This, combined with the growing demand for the movement of freight, goods and people in East Anglia, provides justification for improvements to the transport system in the area.

As reported last year, the A1 trunk road has been upgraded to a three-lane motorway (A1M) between Alconbury and Norman Cross. Other road improvements highlighted in the Action Plan have yet to be completed.

2.4 WASTE TREATMENT AND DISPOSAL

The Government's National Waste Strategy for England and Wales was published in May 2000, building on the previous White Paper 'Less Waste: More Value'. The Strategy indicates that there is a need for radical changes to the way we manage waste and resources. Firstly, there is a need to tackle the waste growth problem, especially for household waste. The Strategy outlines a series of new initiatives and voluntary measures, aimed at facilitating an overall reduction in the amount of wastes produced nationally. A target of 40% has been set for the recovery of municipal (and similar for commercial) waste, and 25% for recycling or composting of household waste by 2005, 30% by 2010 and 33% by 2015. In addition, the Government has proposed statutory recycling targets for Local Authorities to achieve by 2003 and also a permitting scheme for Local Authorities, to reduce the quantities of biodegradable waste being landfilled.

As part of the Agency's remit to improve the availability of information relating to waste management, in September 2000 we will publish a Strategic Waste Management Assessment (SWMA) document for the East of England Planning Region. SWMAs are the result of survey work and research conducted by the Agency to assess the quantity and types of waste arising, as well as the methods of disposal and patterns of waste flow within the region. The SWMA will detail the waste management capacity available in the constituent county areas and the East of England region as a whole, and will assist planning authorities when considering Waste Local Plans, municipal waste strategies and planning applications for waste management facilities. The data in the report will serve as a benchmark against which to monitor waste reduction measures and waste management methods and is intended to assist in the development of regional waste planning strategy.

Complaints regarding smell emanating from the Warboys Landfill Site have continued, although recently the numbers have decreased. Works scheduled for summer 2000 include

the final capping of the first two cells filled, the installation of a new gas control system (including electricity generation fuelled by landfill gas) and back-up ground flare. The emissions from this system should be much lower than from the current temporary gas flare.

The site's waste management licence was modified in May 2000. As a result of this modification and a new working plan for the site, the actions that must be taken by the site operators are now better defined. The licence requires that "all emissions to air from the waste management operations on site shall be free from odours at levels that are likely to cause pollution of the environment, harm to human health or serious detriment to the local amenity outside the site boundary, as perceived by an authorised officer of the Agency".

2.5 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 to F, and a to 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 from 1997, published in the First Annual Review, with data from 1998, which is the latest validated data.

Figure 3: Annual Trend in River Water Quality

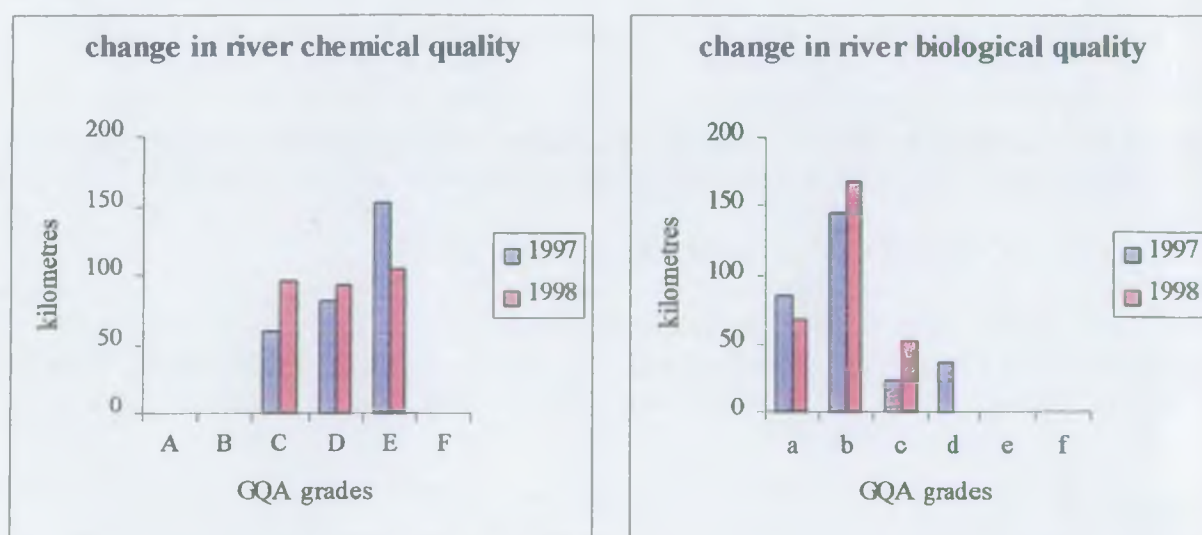


Table 1: Summary of Changes in GQA Grades Between 1997 and 1998

Change in GQA Grade	Chemical	Biological
1 grade improvement	62.0 Km	62.3 Km
2 grade improvement	18.1 Km	14.3 Km
3 grade improvement	0.0 Km	0.0 Km
1 grade deterioration	13.6 Km	66.7 Km
2 grade deterioration	0.0 Km	0.0 Km
3 grade deterioration	0.0 Km	0.0 Km
No change	199.6 Km	144.8 Km
Total length monitored	293.3 Km	288.1 Km

Figure 3 and Table 1 indicate that there has been a general improvement in river chemical quality between 1997 and 1998, with an increase in grades C and D and a decrease in E.

Biological scores tended to be depressed in the spring, compared to previous years, but this was attributable to difficulties in sampling during periods of high flows. No water quality problems were indicated. Routine invertebrate sampling recorded good to excellent water quality throughout the Old Bedford and Middle Level area.

Preliminary results indicate that by the end of 1999, 57% of the length of river in the LEAP area was compliant with its long- and short-term River Quality Targets (River Ecosystem Classes 1-5, detailed in Appendix D and Maps 23a and 23b of the Consultation Report (May 1997)). Once again it would appear that a number of the failures were attributable to natural causes, such as low flows or algae.

It is also possible that in some areas natural inputs from groundwater introduce dissolved salts containing ammonium ions, which contribute to increased concentrations of ammonia in the surface waters. This is thought to occur specifically in the New Fen area (approx. 2 km north-west of Ramsey), which drains to the River Nene (Old Course). This section of the river is regularly monitored as part of our routine water quality monitoring programme and is biologically surveyed in spring and autumn. The biological water quality downstream of New Fen is described as excellent in the spring 1999 survey results. Occurrences of increased ammonia concentrations are sporadic and not fully understood (see Issue 13 in Chapter 3). We will continue to assess both the biological and chemical status of the Main River, in order that any long-term deterioration may be identified.

2.6 FISHERIES, ECOLOGY AND RECREATION (FER)

The Ouse Washes provide a focus for recreational activities in the locality. Watercourses here and throughout the area are fished extensively, the annual influx of migrating birds attracts many bird watchers, and footpaths are well used by ramblers and the general public.

2.6.1 Fisheries

All the major drain fisheries in the Middle Level System were surveyed in 1999. Results are shown in Table 2, which also includes a comparison with biomass results from the previous survey.

Table 2: Fisheries Biomass Survey Results 1999

Watercourse	Biomass (g/m ²)		Classification
	1994	1999	
Kings Dyke	21.9	31.4	A (improved)
Whittlesey Dyke	19.6	16.8	B (declined)
Twenty Foot	34.3	46.0	A (improved)
Yaxley Lode and Bevills Lode	13.7	11.8	B (maintained)
Monks Lode and Great Raveley Drain	14.7	12.3	B (declined)
River Old Nene	22.0	29.0	A (improved)
Forty Foot	20.6	65.8	A (improved)
Sixteen Foot	14.4	19.7	B (improved)
Well Creek	21.3	42.3	A (improved)
Pophams Eau	20.4	15.9	B (declined)
Middle Level Main Drain	13.9	14.0	B (maintained)

The most notable changes in fish populations were seen in the Forty Foot Drain and Well Creek. The biomass in the Forty Foot has increased three-fold since 1994, due to improvements in roach and common bream survival and recruitment. Well Creek biomasses have doubled over the same period; in addition to healthy roach and bream populations, the predator fish are thriving. At the downstream end, near Salters Lode Lock, the turbid water appears to suit zander particularly well.

The next planned surveys on the Old Bedford/Counter Drain and Old Bedford/Delph are scheduled for 2002. This will provide an opportunity to monitor the status of the spined loach in these two cSAC rivers.

Water quality continues to impact on fish stocks in the Ouse Washes rivers. Dissolved oxygen levels fluctuate considerably in the summer months, and in August 1999 a loss of 450 small roach was recorded in the Old Bedford/Counter Drain upstream of Welney. Fisheries and environmental protection staff monitor the oxygen levels in the Delph closely as the water is drained from the Washes each year.

The Habitats Directive requires us to assess the potential impact of all the permissions that we grant (see Section 4.8, Habitats Directive). One such permission concerns the right to fish the Ouse Washes rivers for eels. Work on the assessment is in hand but it has delayed the advertising and letting of leases for the activity.

2.6.2 Recreation

The Fenland area has benefited from a number of European grants, through the Government Office for the Eastern Region, to boost tourism and local economies. In keeping with its duty to enhance and promote recreation associated with inland waters, the Agency has been involved in a number of the schemes.

We have contributed to the Fen Tourism Group's programme of improvements for boaters, anglers, walkers and the public in general. Regeneration projects to date include upgrading moorings, installing new angling platforms and creating waterside picnic areas. The Black

Fen Waterside Trail is about 100 km long and links towns and villages such as March, Upwell, Benwick, Denver and Ely.

In partnership with Fenland District Council and the Middle Level Commissioners, we have secured match funding from the European Commission (EC) to install 3 fishing platforms for the disabled on the banks of the Old River Nene, at the Recreation Ground in March.

The Agency also supports, although not financially, Fenland District Council's Countryside Access Project. A number of circular access routes are being developed for walkers, cyclists and horse riders, to improve the links between the area's towns and villages.

Considerable lengths of the Ouse Washes riverbanks are leased to angling clubs by the Agency. However, the Habitats Directive requires us to review this policy in light of the candidate Special Area of Conservation (cSAC) and Special Protection Area (SPA) status of the rivers and surrounding area.

2.6.3 Navigation

During 1999/2000, the Tidal River between Salters Lode and the Ely Ouse at Denver was dredged twice, as were Well Creek and the entrance to Old Bedford Sluice. No restrictions were placed on boat passage between Salters Lode and Denver Lock during the year, and a total of 991 boats made the crossing. Since the lengthening of three locks on the Middle Level's main through route, there has been some increase in the number craft visiting the Fens. However, the length of the pen at Salters Lode lock can make passage of the Tidal River difficult and very slow for long narrowboats.

During 1999 only a handful of boaters took advantage of the raised water level in the Forty Foot Drain between Horseway Lock and Welches Dam, when this stretch of the watercourse was filled on pre-arranged weekends, to link with the Old Bedford. Many boaters, particularly hirers, prefer to make circular trips and, disappointingly, siltation prevented passage for navigators of the Old Bedford Sluice.

Two schemes identified by the Fen Waterways Regeneration Project (to which we have contributed financially) were commissioned during 1999. Both will benefit boaters in the area. The first scheme involves an audit of moorings and navigation facilities, with the aim of creating a new mooring and identifying suitable sites for future moorings. The second is a route feasibility study, examining navigable links between Ramsey and Earith. Both project reports will be submitted to the Fen Waterways Regeneration Project Steering Group during Summer 2000.

2.6.4 Biology

An extensive and detailed survey of aquatic vegetation (macrophytes) was carried out on the Old Bedford/Counter Drain and Old Bedford/Delph in July and August 1999. Species occurrence, distribution and abundance were mapped along most of the channel lengths between Earith and Welmore Lake Sluice. Both watercourses were generally characterised by rich and abundant flora, although diversity was restricted at either end of the Counter Drain, with filamentous algae dominating. The plant community recorded suggests a water

enriched by inorganic plant nutrients such as nitrogen and phosphorous (eutrophic), and, in comparison to a 1986 survey, there are indications of a deterioration in species diversity (see Issue 12).

2.7 FLOOD DEFENCE

Mrs Gillian Shephard MP formally opened the Agency's £5M construction project, the John Martin Sluice at Welmore Lake, in April 2000. The work included construction of the largest known circular steel-piled cofferdam in Europe, 46 metres in diameter, to provide a dry working area in the bed of the river. The new sluice replaces one completed in 1933 and controls both tidal flow and billions of gallons of floodwater from the Ouse Washes each year. With three gates instead of the former two, its 50% increase in size will allow high-level floodwaters to be discharged more quickly. It provides protection for more than 29,000 hectares of fenland.

In last year's Annual Review, we reported on the formation of a partnership project to promote and seek funding for works to reduce the risk of environmental damage to the Ouse Washes Habitats Directive site by faster removal of floodwater. This Ouse Washes Habitat Protection and Funding Project is managed by Keith Stonell, Area Manager (Central) for the Agency's Anglian Region. A number of organisations are represented on the Project Team, including English Nature (EN), Royal Society for the Protection of Birds (RSPB), Wildfowl and Wetlands Trust (WWT), Internal Drainage Boards (IDBs), Inland Waterways Association (IWA), Norfolk County Council and the Agency.

Untimely flooding of the Ouse Washes during April has a detrimental effect on the breeding season for birds, and the Project Team has appointed Posford Duvivier to appraise options that would either:

- try to prevent summer floodwater from entering the Washes; or
- improve evacuation of floodwater from the Washes.

Their report will be reviewed and reported on in the next Annual Review of this LEAP.

The Project Team is also exploring the possibility of obtaining grant aid from the Ministry of Agriculture, Fisheries and Food (MAFF) to carry out any works that may be necessary to address the problems associated with this flooding.

2.7.1 Flood Warning

The flood warning system used by the Agency has been subject to review. In September 2000, we shall change from the current colour-coded (yellow, amber, red) system to a new 4-phase system using:

- Flood Watch;
- Flood Warning;
- Severe Flood Warning; and
- All Clear.

This system is designed to eliminate public confusion over the colour coding of messages. A further public relations campaign will be run to introduce the new codes in September.

2.8 WATER ABSTRACTION

The primary use of water in this area continues to be spray irrigation for the production of vegetable and salad crops (55% of the total quantity licensed). During the drought years of 1995 to 1997 it was necessary to limit the quantity abstracted for this purpose. However, during 1998 and 1999 (apart from a few days) restrictions were not necessary.

The average annual rainfall is 550 mm, with little variation across the area. In summer, evaporation exceeds rainfall and there is little excess water resource. The rain gauge at March (TL 417 950) has a long-term average of 564 mm for the period 1961 to 1996. Total rainfall recorded at this station for 1997, 1998 and 1999 was 475 mm, 576 mm and 567 mm respectively.

In last year's Annual Review, we mentioned the Government's review of abstraction licensing legislation. The Department of the Environment, Transport and the Regions (DETR) published their decisions in Taking Water Responsibly (March 1999). Following the Queen's Speech in November 1999, the draft Water Bill is expected this year and the change of law could be in 2001. This legislation is particularly significant for abstractions made using slackers (pipe and valve systems through which water is transferred between high- and low-level watercourses) as it is likely that slacker transfers will be subject to authorisation by the Agency. There may be small, localised transfers which, at the Agency's discretion, could continue to be managed without formal authorisation.

We have continued the programme concerning Catchment Abstraction Management Strategies (CAMS), formerly announced as Abstraction Management Strategies (AMS). The process was trialled nationally in 1999; one of the trial areas was the Little Ouse River Catchment to the east of this Plan area. Public consultation began on 10 April 2000, when Sir John Harman, the Agency Chairman, and the Rt Hon Michael Meacher MP hosted a 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."

In this area, the Agency and abstractors alike already appreciate the scarcity of water resources and the need for active management. There is a good level of communication and understanding between all concerned. CAMS production will begin in April 2001. (The location of the first CAMS has not yet been determined).

In the meantime, our National and Regional Water Resources Strategies will be produced in December 2000. The consultation document 'Sustainable Water Resources for the Future : Values and Challenges' was issued in October 1999 and invited comment about thirteen issues, including 'What environment should we protect ?', 'What are the main dependencies between rural land-use and water resources ?' and 'Should water resources be developed locally ?'. The period of consultation finished on 31 January 2000, and 268

replies have been received. A statement summarising these views is expected in the near future.

A new issue in 1999 was the discovery in Middle Level watercourses of the bacteria (*Ralstonia solanacearum*) which can cause potato brown rot/tomato bacterial wilt if the water is sprayed on the crops. The MLC worked with MAFF last summer to ensure that the host plant, woody nightshade (*solanum dulcamara*), was extensively eradicated by spraying with herbicides. Some regrowth of the plant has been reported in 2000, particularly in Pig Water, and this is being removed manually. There is also concern that the bacteria could enter the system at Stanground, where water is transferred from the River Nene into the Middle Level. MAFF will retest Middle Level waters for the bacteria this year.

3. PROGRESS REPORT

3.1 SUMMARY OF ISSUES

Issues in the list below were identified in the Action Plan or First Annual Review, although the title of Issue 7 has been amended. A number of the actions listed in those earlier documents were completed in the first year of the Plan's operation and have therefore been deleted from the Activity Plans in Section 3.4. Where appropriate, new actions have been added to the tables; shaded activities have been completed and will be removed at the next annual review.

A) Managing the Ouse Washes

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

B) Biodiversity and Nature Conservation

- Issue 7 Habitats Directive needs to be implemented for cSACs and SPAs.
- Issue 8 Scope for habitat protection and improvement.

C) Land Use and Development Pressures

- Issue 9 Tyre dump posing pollution risk.
- Issue 22 Complaints about smells emanating from Warboys Landfill Site.

D) Impact of Sewage Treatment Works on Water Quality

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

E) Enjoyment of the Waterways (Recreation and Navigation)

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

F) Need for Monitoring and Investigation

- Issue 18 Lack of biodiversity data.
- Issue 19 Lack of monitoring of slacker flow out of the Tidal River.
- Issue 20 Lack of water quality data in the Hundred Foot River, Old Bedford River and Counter Drain.
- Issue 21 Outbreak of Potato Brown Rot/Tomato Bacterial Wilt in the Middle Level.

3.2 NOTABLE ACHIEVEMENTS

- (i) Of 11 major drain fisheries surveyed in 1999, 6 showed an improvement in biomass since the previous survey, with increases of up to 300%.
- (ii) The £5.2 million project to reconstruct Welmore Lake Sluice was completed in September 1999, and the new 'John Martin Sluice' was formally opened in April this year. The reconstruction project was recognised in the annual Quality in Construction Awards, co-ordinated by Construction News, when it was awarded the honour of 'highly commended'.
- (iii) The 'Business and Environment Support Programme for the Fens Area' has now been established. This partnership project involves a number of different and diverse organisations, including the Agency, and is designed to help businesses improve performance through a combination of social, economic and environmental factors.
- (iv) A number of successful partnership projects to enhance opportunities for recreation and access have been completed or are in progress. For instance, we have contributed to the Fen Tourism Group's projects to upgrade moorings, install angling platforms and create waterside picnic areas. With Fenland DC and the MLC we have secured match funding from the EC to install 3 fishing platforms for the disabled, on the riverbank in March.
- (v) The Relief Channel project was awarded £500K Objective 5b funding from the European Regional Development Fund. This £1 million scheme will enable boats to pass from the Ely Ouse into the Relief Channel and safely travel 17 km to King's Lynn.
- (vi) Work is progressing on schedule to review all consents that have been (or will be) issued by us and that may have an impact on cSACs or SPAs in the area, as required by the Habitats Directive.
- (vii) Approval has been granted for the appointment of a Partnerships Officer for each of our Area offices in Anglian Region. This post will be used not only to seek partnership opportunities but also to secure external funding for projects identified in our LEAPs and Business Plan.

3.3 DISAPPOINTMENTS

- (i) Siltation has continued to prevent normal access for navigators into the Old Bedford.
- (ii) Although the refurbishment and automation of Welches Dam Pumping Station has been completed, there are still some mechanical problems to resolve.
- (iii) Progress with some of the activities previously identified has been delayed due to our ongoing need to ensure that the highest priority work and our statutory duties are carried out first.

3.4 ACTIVITY PLANS

We recognise that environmental problems are inter-related and need to be dealt with in an holistic manner. Our publication entitled ‘An Environmental Strategy for the Millennium and Beyond’ (Sept 1997) adopted an integrated approach to understanding, managing, regulating and improving the quality of air, land and water by introducing nine themes, namely:



Addressing climate change;



Regulating major industries;



Improving air quality;



Managing waste;



Managing our water resources;



Delivering integrated river-basin management;



Conserving the land;



Managing freshwater fisheries; and



Enhancing biodiversity.

The issues identified below have been cross-referenced to between one and three environmental themes by using the appropriate symbols within the tables.

The text in the tables has been developed from the Old Bedford (incorporating the Middle Level and Ouse Washes) Action Plan and its First Annual Review, and should ideally be read in conjunction with those documents. It has been updated to show the progress and changes that have occurred since the First Annual Review was published in May 1999. Shaded boxes represent completed activities.

Map 2 shows the locations of site-specific issues.

KEY TO ACTIVITY TABLES

tbd to be determined
N/K Not known
R Revenue

FERm Fisheries Ecology & Recreation Manager
FDm Flood Defence Manager
WRm Water Resources Manager

EPLm Environment Planning Manager
EPRm Environment Protection Manager
CSm Customer Services Manager

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Map 2



ENVIRONMENT AGENCY



0 10km



Issues

KEY



- Area Boundary
- Main River
- Middle Level Commissioners Main Drains
- ① Issues





A) Managing the Ouse Washes

No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
1	Need to maintain flood defence capacity	Refurbishment of Welches Dam Pumping Station, following a detailed appraisal of the Counter Drain System.	Agency	230k							Although the project is complete this activity has not been deleted because not all mechanical problems have yet been resolved.
			FDm								
2	Need to improve the management of flooding on the Ouse Washes	Re-construction of Welmore Lake Sluice to improve the gravity discharge capacity by 50% and seek to avoid excessive siltation.	Agency, 100 Foot Washes IDB	5200k							This project has been completed.
	It is desirable that summer flooding is limited and that the washes are drained rapidly after winter inundation. Summer flooding is undesirable because it makes it more difficult to maintain open grassland and to manage the Washes for conservation, wildfowling and grazing.										
			FDm								




No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
2	<i>continued</i>	Seek adoption of the Wash River Outfall Strategy and implement as appropriate.	Agency	5910k	*	*	*	*	*	*	Immediate recommendations of the Wash River Outfall Strategy have been implemented. The west training wall has been strengthened locally, as an overspill weir, to accommodate Ruin Creek flowing over. The dock shoal will be dredged as required. Feasibility studies are required for a number of options, and any additional activities will be reported in the next Annual Review of this LEAP.
		Undertake a Denver Operational Review.	FDm								The Denver Operational Review report has been accepted and operational practices are being amended. To reduce siltation, water is discharged into the Tidal River through Denver Sluice whenever possible, rather than into the Relief Channel. Other activities may be identified in the next Annual Review of this LEAP.
		Reduce the impact of summer flooding on the Ouse Washes	Agency	tbd							The multi-partner Ouse Washes Habitat Protection and Funding Project Team has appointed Posford Duvivier to appraise options that would either prevent water entering the Washes during the summer or improve the evacuation of floodwater. Activities, costs and timescales will be determined once Posford Duvivier's report has been evaluated.
		Carry out minor dredging on the Hundred Foot River to provide extra channel capacity.	Agency	200k	*	*	*	*	*	*	The river is surveyed each year to ascertain whether dredging is required. This includes widening the channel at higher levels to increase its capacity during flood flows. Estimated costs for maintenance dredging over the next three years are £20k for 2001/02, £20k for 2002/03, £25k for 2003/04.
			FDm								



No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
2	<i>continued</i>	Divert 5 m ³ /s of water into the Old West (to relieve pressure on Old Bedford) by undertaking engineering works near Hermitage Lock.	Agency <i>FDm</i>	800k		*	*				It is envisaged that this will open before Earith Sluice and so reduce the frequency of flooding of the Ouse Washes. Initial findings of the Ouse Washes Summer Flooding Report indicate that the amount of floodwater that could be diverted is likely to be insufficient to make a significant reduction in the frequency of summer flooding. However, final conclusions have yet to be reached.
3	 Water levels cannot be maintained in the Old Bedford/ Counter Drain in summer	Review water resources management rules for transfer into the Old Bedford/ Counter Drain.	Agency <i>WRm</i>	R		*	*				This project is still scheduled to commence during 2000/01, with completion during 2001/02.
4	 Abstraction by IDBs not controlled by licences, hence posing a risk to river levels	Liaison between the Agency and IDBs about water management and abstraction, to include raising inlet levels of slackers and adoption of cessation levels as appropriate.	Agency/IDBs <i>WRm</i>	R	*	*	*	*	*	*	Liaison continues as necessary, to ensure that water management is carried out in accordance with best practice.
		Encourage a change in the law so that slacker abstraction will be subject to authorisation by the Agency.	DETR, Agency <i>WRm</i>	R	*	*	*				The draft Water Bill is expected in 2000, and the change of law may occur in 2001.

No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
5	  Control weed growth in the Old Bedford/Counter Drain and Old Bedford/Delph This is a necessary activity, for both flood defence and navigation. Consultation identified the need to review weed cutting timing and arrangements. Consensus between EN and the Agency through liaison with others is key.	Annually assess and employ the most effective weed cutting methods, eg cut by weed boat, use of week rake machine, etc.	Agency, English Nature (EN)	R	*	*	*	*	*	*	Weed growth will continue to be controlled as agreed with EN. The use of barley straw to control cott in these watercourses has been discontinued as it was found to be ineffective.
			<i>FDm/FERm</i>								
6	  Access to the Ouse Washes via the Cradge Bank is causing serious deterioration of the bank and hence increases flood risk Consultation responses supported the Agency taking a tougher line to ensure enforcement of the management guidelines and how vegetation is managed.	Undertake continued liaison with the Management Strategy Group to seek ways to resolve the issue satisfactorily	Agency, Ouse Washes Management Strategy Group	R	*	*	*	*	*	*	In addition to ongoing activities reported last year, a local agreement between wildfowlers and the RSPB means that each spring the RSPB will level areas of severe damage.
			<i>FDm</i>								



B) Biodiversity and Nature Conservation

No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
7	 Habitats Directive needs to be implemented for cSACs and SPAs in the LEAP area	Designate SAC and SPA sites.	European Commission, EN	N/K	*						The EC's current moderation exercise could alter site features.
		Identify conservation objectives.	<i>FERm</i>								Conservation Objectives for sites are in production.
		Carry out a review of all consents and authorisations that may affect candidate SACs and SPAs, as required under the Habitats Directive.	All 'competent authorities', eg Agency, EN, MLC <i>FERm WRm EPLm FDm</i>	R	*	*	*	*	*	*	The deadline for completion of the Agency's review is 2004.
7(i)		Manage the Ouse Washes cSAC/SPA.	Agency, EN, RSPB, WWT, 100 Foot Washes IDB, Landowners <i>FERm</i>	R	*	*	*	*	*	*	<p>The Agency will assess all consents, by 2004, and projects that could potentially impact on the designated area.</p> <p>The leases for grazing, angling and eel fishing are currently subject to this process.</p> <p>The anticipated cost for the region in 2000/01 is £570k.</p>
7ii)	 	Manage the Woodwalton Fen cSAC.	Agency, EN, MLC <i>FERm</i>	R	*	*	*	*	*	*	The Agency is assessing all new consents or projects that could potentially impact on the designated area.
		Undertake further water quality sampling to ascertain the impact on local watercourses of draining floodwater from Woodwalton Fen.	Agency <i>FERm/EPRm</i>	500 pa	*	*	*	*	*	*	Routine samples taken in the Great Raveley Drain between 1998 and 2000 did not indicate any downgrading of water quality following drainage of floodwater from Woodwalton Fen.


No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
8	<p>Scope for habitat protection and improvement</p> <p>It is recognised that the river habitat in this plan area is predominantly manmade.</p> <p>The unique ecology of drains in the Ouse Washes and the Middle Level system should be maintained, careful consideration of any proposed enhancements is required.</p>	<p>Review best practice for routine maintenance works so that opportunities for maximizing nature conservation are exploited.</p> <p>Investigate the potential for specific habitat enhancement partnership (to include the Wet Fens for the Future initiative and the European LIFE funding initiative for the Fenland natural area).</p>	<p>Ouse Washes Management Strategy group, EN, Agency, MLC conservation group, external bodies and wildlife groups</p>	R	*	*	*	*	*	*	Best practice for routine maintenance activities will also be subject to the requirements of the Habitats Directive.

C) Land Use and Development Pressures

No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
9	Tyre dump posing pollution risk	Investigate interim measures, such as placing the tyres in cells with fire breaks and access points and placing bunds on the perimeter to protect local watercourses, to restrict the impact of fire.	Agency, local authorities	10k	*	*	*				<p>A site environmental risk assessment has been drawn up by the Agency.</p> <p>Potential drainage pathways have been partially severed by adjacent deep excavations during the construction of a new power station. Pollution risk has been reduced.</p> <p>Discussions with the Fire Service regarding contingency plans are to begin, as are formal discussions with the landowner regarding the future of the site.</p>

No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
22	  Complaints about smells emanating from Warboys Landfill Site	Amend site licence to introduce legal control of odours.	Agency, Site Operator <i>EPRm/EPLm</i>	R	*	*					The site has been licensed since 1995. Categories of waste authorised for disposal were amended in 1997 and 1998. Odours may be produced by odorous wastes entering the site and/or decomposition of emplaced wastes. They tend to be transient and dependent on wind speed and direction. The licence was modified in October 1999 and again in May 2000. (See Section 2.4)
		Investigate methods of odour control.	Agency, District Council, Site Operator <i>EPRm/EPLm</i>	Cost to site operator							Additional controls will be introduced this autumn with the installation of a gas to power generation plant/ground flare, to minimise/prevent the escape of gases from the site.

D) Impact of Sewage Treatment on Water Quality



No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
10	Improvement to sewage treatment works	<i>It should be noted that Issue 10 – Improvement to Sewage Treatment Works - has been deleted from the table. The action to carry out works at Somersham STW was completed in December 1997; outstanding and new activities have been transferred to Issue 13 – Failures to Meet Water Quality Objectives.</i>									
11	 Adverse Impact of combined sewer outfalls (CSOs)	Carry out Storm overflow improvements at Whittlesey and Upwood.	AWS <i>EPLm</i>	Cost to AWS	*	*	*	*	*	*	These works are part of the agreed Asset Management Plan 3 (AMP3), timetabled for 2000-2005.

No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
12	Adverse effect of eutrophication Nutrient enrichment of waters by nitrate and phosphate can lead to eutrophication. Enrichment can come from point sources, such as STW discharges, as well as diffuse sources, such as run-off from agricultural land.	The Middle Level System has been approved for designation as a Sensitive Area (Eutrophic) under the Urban Waste Water Treatment Directive (UWWTD) by the Agency national panel. Negotiations are under way for phosphate removal at the relevant STWs.	Agency, DETR, AWS <i>EPLm</i>	Costs to AWS							Appropriate works have been agreed as detailed below.
		Phosphate removal to be installed at Whittlesey, Ramsey and March.	Agency, DETR, AWS <i>EPLm</i>	Costs to AWS	*	*	*	*	*	*	These works are part of the agreed AMP3, timetabled for 2000-2005, due to the designation of the Middle Level System as a Sensitive Area (Eutrophic). Chatteris is a 'through growth' scheme, i.e. phosphate removal will only be required if population equivalents exceeds 10,000.
		Investigate further ways to reduce eutrophication.	Agency <i>EPLm</i>	tbd	*	*	*	*	*	*	This will be addressed by the National Eutrophication Strategy due for publication summer 2000. Phosphate, nitrate, diffuse and point source pollution are considered.
13	Failures to meet Water Quality Objectives A number are attributable to natural causes such as low flows or algal growth. We will continue regular monitoring and further investigation as necessary.	Investigate the cause and effect of significant River Ecosystem Classification failures.	Agency <i>EPLm</i>	1-5k per survey	*	*	*	*	*	*	Local geology and soils give the potential for naturally occurring inputs of dissolved salt species into specific watercourses. The situation will be monitored through routine sampling, and a biological assessment will be carried out to determine the impacts. (See Section 2.5) Further research will be initiated if required.


No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
13	<i>continued</i>	Improvements to Whittlesey, Sawtry, Upwood and Manea STWs	AWS <i>EPRm</i>	Cost to AWS	*	*	*	*	*	*	These works are to achieve River Needs Consent (RNC) standards as part of AWS' AMP3, timetabled for 2000-2005. Some work has already been undertaken at Upwood STW to improve its performance and reduce flows. The further work to be undertaken is to achieve RNC standards. Ramsey is to be re-evaluated and is subject to further ministerial decisions.
14	Unsewered villages: Upwell and Outwell Upwell and Outwell have been identified as requiring a sewerage system.	Install sewage systems at Upwell and Outwell.	AWS, Agency, Local Council <i>EPLm</i>	Cost to AWS	*	*	*	*	*	*	The appraisal for Upwell and Outwell is complete. It is confirmed that both villages will have a sewerage system by 2005. As reported in the Action Plan, other unsewered villages may have a new sewerage system provided by the water company under Section 101A of the Water Industry Act 1991, as amended by Schedule 22 of the Environment Act 1995. This states that the water companies have a duty to provide a public sewer where certain conditions are satisfied. The Agency, through its planning liaison activity, continues to promote the provision of sewerage for all new developments.



E) Enjoyment of the Waterways




No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
15	 Review and promote appropriate public access to inland waters in conjunction with other organisations	Opportunities for walking and other water-based recreational activities (including angling) should be investigated in-line with agreed recreation/visitor and tourist strategies. Ensure that the needs of less able-bodied persons are also considered. Initiatives in the Ouse Washes should not conflict with existing uses and the conservation objectives of the area.	Agency collaboration with county and district councils, MLC, wildlife trusts and other external parties. <i>FERm</i>	30k	*	*					A number of successful partnership projects have been completed or are in progress, especially those generated by the Fen Waterways Regeneration Strategy (see Section 2.6.2). It is anticipated that further opportunities will be identified, whereupon budgets will be sought.
16	 Review the Old Bedford Navigation Recent difficulties have been experienced in using this statutory navigation channel. Water availability, siltation, weed growth all impact on the access and enjoyment of boaters.	Assess the effect of river management activities on the channel and connecting waters, for example the impacts of cSAC designation and any alterations to the weed cutting regime on boating usage in the Old Bedford/Counter Drain.	Agency, Interested Parties <i>FERm</i>	20k						*	The review continues to be delayed. This is due to reprioritisation of capital works, particularly those projects associated with Health and Safety requirements.

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No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01
17	<p>Siltation in the Hundred Foot River and the Tidal River</p> <p>(See also Issue 2: Managing the Ouse Washes). The build up of silt downstream of the plan area, which is exacerbated by low flows, has resulted in problems in the operation of the Old Bedford Sluice. Navigation is difficult between Earith and Denver and especially the Denver to Salters Lode Lock link.</p> 	Routine local dredging of silt banks in front of Salters Lode Lock and Old Bedford Sluice.	Agency (in consultation)	4k each time	*	*
			<i>FERm/ FDm</i>			

01/02	02/03	03/04	Future	Progress
*	*	*	*	<p>Ongoing. We have allocated approx £50k per annum for dredging the tidal river between Denver Lock and Salters Lode Lock, to retain the link for boat passage.</p> <p>A full survey will be carried out this year to assess current bed levels.</p> <p>Two other activities previously identified under this issue and issue 2 were 'complete the investigation into the operation of the Denver Sluice complex' and 'the rebuilding of Welmore Lake Sluice'. Both can be found under issue 2 in this Annual Review.</p>

F) Need for Monitoring and Investigation.

No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01	01/02	02/03	03/04	Future	Progress
18	 Lack of biodiversity data There is currently a shortage of detailed conservation information on the watercourses of the Middle Level system. A review will help to target future resources.	Compile quality data on the Area's flora and fauna by the collaboration of interested parties. The use and effectiveness of the proposed biological records centre in Cambridgeshire should be assessed.	MLC Conservation Group Agency, EN, Wildlife Trust, Local Authorities <i>FERm</i>	R	*	*	*	*	*	*	Cambridgeshire Biodiversity Action Plan was launched earlier this year. The Local Habitats Action Plan for Drainage Ditches in Cambridgeshire was published in December 1999. Since April 1998 the water vole and its associated habitat have received legal protection through their inclusion on Schedule 5 of the Wildlife and Countryside Act 1981. The MLC are currently surveying their watercourses, with Cambridgeshire Wildlife Trust, to determine the population and distribution of this species.
19	 Lack of Information on slacker flows out of the Tidal River	Assess the possibility of monitoring slacker flows.	Agency, IDB, MLC <i>WRm</i>	10-20k			*				This information will allow us to determine a water balance for the system and hence help us make decisions on water resources licensing. Delayed. The feasibility study is unlikely to start until 2001/02 due to prioritisation of other work.
20	 Lack of water quality data for the Hundred Foot River, Old Bedford and Counter Drain	Carry out feasibility studies for the installation of water quality monitoring stations at Welney for the Hundred Foot River and at Welches Dam for the Old Bedford/Counter Drain.	Agency <i>EPRm</i>	80k	*						A meter to measure dissolved oxygen and temperature is being installed on the Old Bedford/River Delph at Welney this summer, with links to the Region's telemetry network. It is not currently possible to install a meter at the new John Martin (Welmere Lake) Sluice.

No	Issue	Activity	Responsibility	Cost (£)	99/00	00/01
21	The bacteria which causes Potato Brown Rot/Tomato Bacterial Wilt has been identified in the Middle Level	Removal of host plant <i>Solanum dulcamara</i> (Woody Nightshade), where this is growing with its roots in a watercourse, by controlled spraying of glyphosate.	MAFF	N/K	*	*



01/02	02/03	03/04	Future	Progress
*	*	*	*	<p>The Middle Level Commissioners carried out an eradication programme on their drains during the summer of 1999, sponsored by MAFF. Monitoring suggested that the herbicide treatment had been very effective, however some regrowth of woody nightshade has been reported, particularly in Pig Water. This is being removed manually. MAFF will retest Middle Level waters for the bacteria this year.</p> <p>There is likely to be continuous monitoring of the situation, and action by MAFF and MLC as necessary to eradicate the bacteria. (See Section 2.8)</p>





4. NEW LEGISLATION

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 the following amounts will be diverted:

25% within 5 years of the implementation date;
50% within 8 years of the implementation date; and
65% within 15 years of the implementation date.

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 CONSULTATION AND COMPENSATION REGULATIONS 1999

These Regulations came into force on 1 April 1999 and require the Agency to consult with landowners where they are required to permit works to be carried out on their land as a result of a waste management licence condition, e.g. a groundwater monitoring borehole outside the landfill site boundary. The Regulations require licence-holders to compensate landowners for the works that they are required by the licence to carry out if they do not have the rights to do so.

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 (currently due for implementation by summer 2000). 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 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.

4.6 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.

4.7 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 will be separate from LEAPs, will describe the abstraction policies for river catchments, 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 drawn up a programme that included national trials of the concept in 1999, formal consultation in 2000 and production of local CAMS commencing in 2001 (see Issue 2).

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.

4.8 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 impact 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 permissions before 2004. This has implications for all consenting functions within the Agency, including Water Resources, Waste, Industrial and Radioactive Substances Regulation, Water Quality Consenting, Fisheries, Estates and Flood Defence.

4.9 IMPORT OF LIVE FISH (ENGLAND & WALES) ACT 1980

In November 1998, The Prohibition of Keeping or Release of Live Fish (Specified Species) Order was made under this Act. 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 28 fisheries in Central Area have been assessed; none are located in the Old Bedford area.

4.10 PLANNING LEGISLATION AND GUIDANCE

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

Changes to the 1988 legislation means 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.

4.11 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.

4.12 LAND DRAINAGE EIA REGULATIONS (SI 1783) 1999

Changes to the 1988 EIA 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.

4.13 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.

4.14 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.

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
Agency	Environment Agency
AMP	Asset Management Plan
aODN	above Ordnance Datum Newlyn
AWS	Anglian Water Services
BOD	Biochemical Oxygen Demand
CAMS	Catchment Abstraction Management Strategies
cm	Centimetre
CSO	Combined Sewer Outfall
DC	District Council
DDC	District Drainage Commissioners
DETR	Department of Environment, Transport and the Regions
DO	Dissolved Oxygen
EC	European Commission
EN	English Nature
EPLm	Environment Planning Manager
EPRm	Environment Protection Manager
FDm	Flood Defence Manager
FERm	Fisheries, Ecology and Recreation Manager
GQA	General Quality Assessment
IDB	Internal Drainage Board
IPC	Integrated Pollution Control
IWA	Inland Waterways Association
kg	kilogram
km	kilometre
LEAP	Local Environment Agency Plan
m	metre
m ³ /s	cubic metres per second
MAFF	Ministry of Agriculture, Fisheries and Food
MLC	Middle Level Commissioners
OFWAT	Office of Water Services
PECT	Peterborough Environment City Trust
R	Revenue (cost)
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation (c – candidate)
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STW	Sewage Treatment Works
SWMA	Strategic Waste Management Assessment
UWWTD	Urban Wastewater Treatment Directive
WLMP	Water Level Management Plan
WRm	Water Resources Manager
WWT	Wildfowl and Wetlands Trust

Note: A full glossary is provided in the Action Plan.

APPENDIX 3: AEG SUB-GROUP AND PROJECT TEAM MEMBERSHIP FOR THE OLD BEDFORD LEAP – SECOND ANNUAL REVIEW

Representatives of the Great Ouse Area Environment Group (AEG)

Colin Clare (Chairman of AEG)
Charles Bootle
Geoff Cave
Ian Garner
Donna Radley
Michael Tassell

Project Team

Nigel Fawthrop	...	Area Customer Services Manager (Project Executive)
Jackie Sprinks	...	LEAPs Officer (Project Co-ordinator)
Julie Barker	...	Team Leader – Water Resource Management
Neville Bussingham		Flood Defence Engineer
Roger Handford	...	Team Leader – Fisheries and Recreation
Phil Henderson	...	Environment Protection Officer
Pauline Jones	...	Tactical Planning Officer – Environment Planning

Environment Agency
Anglian Region
Central Area
Bromholme Lane
Brampton
Huntingdon
Cambs
PE28 4NE

Tel: 01480 414581
Fax: 01480 413381

Or visit our website at <http://www.environment-agency.gov.uk>

CONTACTS:

THE ENVIRONMENT AGENCY HEAD OFFICE

Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol BS32 4UD.
Tel: 01454 624 400 Fax: 01454 624 409

www.environment-agency.gov.uk

www.environment-agency.wales.gov.uk

ENVIRONMENT AGENCY REGIONAL OFFICES

ANGLIAN

Kingfisher House
Goldhay Way
Orton Goldhay
Peterborough PE2 5ZR
Tel: 01733 371 811
Fax: 01733 231 840

SOUTHERN

Guildbourne House
Chatsworth Road
Worthing
West Sussex BN11 1LD
Tel: 01903 832 000
Fax: 01903 821 832

MIDLANDS

Sapphire East
550 Streetsbrook Road
Solihull B91 1QT
Tel: 0121 711 2324
Fax: 0121 711 5824

SOUTH WEST

Manley House
Kestrel Way
Exeter EX2 7LQ
Tel: 01392 444 000
Fax: 01392 444 238

NORTH EAST

Rivers House
21 Park Square South
Leeds LS1 2QG
Tel: 0113 244 0191
Fax: 0113 246 1889

THAMES

Kings Meadow House
Kings Meadow Road
Reading RG1 8DQ
Tel: 0118 953 5000
Fax: 0118 950 0388

NORTH WEST

Richard Fairclough House
Knutsford Road
Warrington WA4 1HG
Tel: 01925 653 999
Fax: 01925 415 961

WALES

Rivers House/Plas-yr-Afon
St Mellons Business Park
St Mellons
Cardiff CF3 0EY
Tel: 029 2077 0088
Fax: 029 2079 8555



ENVIRONMENT AGENCY GENERAL ENQUIRY LINE

0845 933 3111

ENVIRONMENT AGENCY FLOODLINE

0845 988 1188

ENVIRONMENT AGENCY EMERGENCY HOTLINE

0800 80 7060



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