



ELY OUSE CATCHMENT MANAGEMENT PLAN

FIRST ANNUAL REVIEW JAN 1994 TO JAN 1995

EXECUTIVE SUMMARY

This Annual Review summarises the progress made in achieving targets to improve the water environment in the Ely Ouse Catchment since publication of the Final Plan in January 1994. There has been good progress by most parties in carrying out actions planned for this year, many working in collaboration.

Of the 51 actions identified for this year, 10 have been completed, one deferred and the remainder are ongoing as planned. Five actions have been brought forward to this year.

Improvements in water quality of some rivers has been achieved, both by investment in infrastructure and by pollution prevention visits.

Investigative works in connection with groundwater pollution have been instigated.

The Regional Water Resources Strategy was published, which altered the view of available water resource in the catchment. Groundwater is now only available within the chalk aquifer adjacent to the Upper Wissey. Some surface water is available in all catchments during periods of high flows in winter, but summer water is only available in limited quantities augmented by raw water transfer. This applies to the Thet, Little Ouse and Ely Ouse rivers. The moratorium on licences introduced during the drought no longer applies.

Improvements to flood defence structures has progressed satisfactorily, increasing the standard of service.

All main rivers have been classified for <u>River</u> Habitat and some good progress achieved on restoration works.

Navigation on the Little Ouse will be extended as a result of the new lock at Brandon, and a start on a new footpath along the Cut-Off Channel has been made.

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1.0 VISION FOR THE CATCHMENT

The NRA's vision for the catchment is to maintain and improve the water environment by:-

• Improvement of water quality in rivers and streams and of groundwater.

Improving our understanding of the availability of groundwater and surface water to ensure the proper use, redistribution, augmentation and conservation of the water resource.

- Continuing to improve the standard of service provided by flood defence infrastructure.
- Working with planning authorities to control developments which have potential for harm.
- Enhancing the nature conservation value of rivers.
 - Extending recreational and navigational facilities.

2.0 **INTRODUCTION**

The National Rivers Authority is undertaking a programme of Catchment Management Plans (CMPs). CMPs allow the NRA to balance all the competing requirements and interests of users of the water environment. The process realises the environmental potential of a catchment in terms of water quality, water quantity and physical features. The first stage was the production of a Consultation Report. This outlined the Issues within a catchment and options for their solution. Following a period of consultation, a Final Plan was produced. This included an action plan for improvements to the water environment. It outlined areas of work and investment proposed by the NRA and others.

An important part of the CMP process is to monitor the Final Plan to ensure that targets and actions are achieved and that the plan still addresses all significant issues in the catchment in an appropriate manner. This report summarises the progress made since the publication of the Final Plan in January 1994. It is recommended that this report is read in conjunction with the Final Plan.

2.1 The Catchment

The Ely Ouse Catchment is a combination of seventeen sub-catchments, covering 2510 $\rm km^2$, which reflect the diversity of topography within the area. It has a population of approximately 272,000, with extensive road and rail networks throughout.

The upland areas (72% of the total catchment) are drained by natural rivers and streams. The lowland drainage systems have been modified by man over centuries to provide flood protection for land up to seven metres below normal high tide level.

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The Ely Ouse River flows south to north with the tributaries flowing in from the south and east. The total length of designated main river is 407km of which 161km are embanked. The area protected by embanked channels is 495km², with a further 71km² of natural floodplain. The Ely Ouse and its tributaries are navigable for a length of 103km.

Seventy eight SSSI's are located in the catchment, half of which are water dependent.

To the east, the catchment boundary is the watershed of the upland rivers and streams. To the west it is a combination of the South Level Barrier Bank, alongside the Hundred Foot River, and the hydrological boundary of the Littleport and Downham Internal Drainage Board (IDB). The Denver Sluices provide the northern discharge point whilst balancing the outflow to the tidal river and transferring raw water via the Cut-Off Channel to Essex. To the south, Hermitage Lock controls inflow from the Bedford Ouse system to the Old West River, whilst the River Cam flows into the catchment at Stretham.

Consequently, throughout the lowland area of the catchment, river levels are controlled by the Denver Sluices giving rise to operational and environmental impacts throughout the seasons.

Within this flat or gently rolling area, river valleys are an important feature of the landscape. This is particularly true in the fenland areas where the embanked watercourses, often with associated washlands, offer a sharp contrast between the intensive arable agriculture of the fen and the more 'wild' appearance of the grazed areas adjacent to the river.

The fen area is dominated by Ely, and in particular Ely Cathedral, which is visible from a large part of this low lying area.

The predominant land use is agriculture, the area of urbanisation being comparatively small. There are only five towns with populations over 10,000. Woodland accounts for some 7% of the catchment area. Within the catchment, there are major military installations, eg Mildenhall, Lakenheath, Feltwell, Marham and Honington and the army battle training areas north-west of Thetford and south of Swaffham.

The catchment contains farmland, in the grades I, II, III and IV. Arable farming is the general rule with the fen deposits forming the highly productive Grade I land in the lowland part of the catchment.

Industry type is very varied throughout the catchment and is generally located at the major settlements in designated industrial areas. Notable in Cambridgeshire are the business parks at Witchford, Sutton and Ely.

Apart from the proposed Red Lodge settlement in Suffolk, the growth identified in the structure plans will be concentrated in the existing major population centres.

2.2 Kev Objectives of the Elv Ouse CMP

Key objectives are to:-

- Minimise the adverse effect of urban development on the water environment.
- Progressively improve and maintain water quality and the water environment throughout the catchment.
- Ensure that development of waste disposal sites does not compromise groundwater quality.
- To identify methodology to determine the "in river needs" for the catchment and carry out the appropriate studies for the Lark and Little Ouse.
- Increase biological diversity of the water environment.
- Improve degraded rivers and streams.
- Improve fish stocks through the catchment.
- Increase scope for recreational uses within the catchment.
 - Improve flood defence structures and embankments.
- 2.3 Assessment of the catchment and major changes since publication of the Final Plan

The catchment has been reviewed for the relevance of the actions in the Final Plan, and no major changes have been identified.

The actions in the Final Plan are therefore still considered appropriate and it has not been necessary to re-write the CMP. Any major changes to actions, timescales or costs have been highlighted in bold print in the tables in Section 4.0.

Three new issues have been identified - see page 34.

There have been changes in the status of the respective Local Authority Structure and Local Plans since the production of the Consultation Report (February 1993) and Final Plan (January 1994).

The current position is as shown in the table below.

Current	Status	of	Devel	lopment	Plans	in th	ne Ely	Ou <u>se</u>	Catchment
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LOCAL AUTHORITY	AREA IN CATCHMENT (KM ²)	DEVELOPMENT PLAN
Norfolk County Council	1079 (43%)	Structure Plan - adopted March 1993.
		Waste Local Plan - Consultation Draft expected end 1995.
÷		Minerals Local Plan - Public Inquiry March 1995.
Breckland District Council		Draft District Wide Local Plan - Deposit expected Autumn 1995.
King's Lynn and West Norfolk Borough Council		Borough Wide Local Plan - Deposit. Public Inquiry expected late 1995.
Suffolk County Council	1004 (40%)	Structure Plan - Alteration No 3 - Deposit and proposed modifications. Adoption expected 1995.
	30	Minerals Local Plan - Draft Plan on consultation until April 1995.
Forest Heath District Council		District Wide Local Plan. Public Inquiry held March 1994.
Mid Suffolk District Council		District Wide Local Plan. On Deposit Summer 1994.
St Edmundsbury Borough Council		District Wide Local Plan. Public Inquiry held 1993/94. Inspector's report imminent.
Cambridgeshire County Council	427 (17%)	Structure Plan Review. Examination in Public held Sept 1994. Report just issued.
		Minerals Local Plan - adopted 1991.
East Cambridgeshire District Council		Local Plan adopted December 1993.
South Cambridgeshire District Council		District Wide Local Plan adopted June 1993.

3.0 SUMMARY OF PROGRESS

3.1 In the Consultation Report and Action Plan the water quality targets were referred to as Fisheries Ecosystem Classes. This term has now been changed to River Ecosystem Class.

Issue 1: Cottenham Lode - failure to achieve River Ecosystem (RE) Class 3

The Cottenham STW situation remains unchanged as no specific funding was allocated under AMP2.

Issue 2: Soham Lode - failure to achieve RE Class 3

The Upper reaches are now compliant with their quality objectives but the lower reaches still fail to meet their targets.

Issue 3: River Lark - failure to achieve RE Class 3/2 from Bury St Edmunds to Mildenhall

Improvements to Bury St Edmunds STW are planned under discretionary funding within AMP2 by AWS. Improvement to urban run off is being achieved by currently undertaking a detailed site inspection programme within the Bury St Edmunds area to reduce actual and potential pollution risk to both surface and groundwaters. Several prosecution cases are proceeding to court for causing pollution to the River Lark.

Issue 4: River Kennett - failure to achieve RE Class 2

No discretionary funding has been specifically allocated under AMP2 for improvements to Gazeley STW.

Issue 5: Cavenham Stream - failure to achieve RE Class 4

No discretionary funding has been allocated under AMP2 for improvements to Barrow STW.

Issue 6: Little Ouse - failure to achieve RE Class 4 from Botesdale to Blo Norton ford

Analysis of data has shown that there is no improvement in river quality even though river flows have improved since the drought. Further investigation is needed.

Issue 7: River Sapiston - failure to achieve RE Class 4

Improvements are beginning to be seen at Farm Kitchen Foods with the alterations to their effluent treatment process, but additional work needed to ensure reduced ammonia concentrations. Fourteen pollution prevention inspections have been carried out in this catchment.

Improvements have been identified at two large pig farms within the catchment. There is a prosecution pending for an incident involving pig slurry.

Issue 8: Stowlangtoft Stream - failure to achieve RE Class 3

Work on farm inspections in this catchment have commenced.

Issue 9: River Thet - failure to achieve RE Class 3

Improved effluent quality from industry or in one case a greatly reduced volume, and an almost completed major revamp of the treatment plant, should be reflected in improved river quality.

Sixteen pollution prevention inspections have been carried out in this area.

Issue 10: River Wissey - failure to achieve RE Class 3

There have been significant improvements in the effluent quality at British Sugar Corporation at Wissington over the past 12 months following capital works. The consent has been reviewed to include seasonal variations together with stricter numeric conditions. Automatic monitoring of turbidity and ammonia are also included.

Issue 11: Watton Brook - failure to achieve RE Class 3

Pollution prevention inspections have been commenced.

Issue 12: Unsewered villages - septic tanks discharge to watercourses

Following an approach by the NRA Breckland District Council now have a policy to requisition first time sewerage and a phased programme.

Issue 13: Quality Problems in Groundwater

Issue 13(1)a: Groundwater Contamination by nitrates

Under the EC Nitrate Directive (91/676/EEC) Nitrate Vulnerable Zones (NVZ) have been defined to reduce the nitrate levels in both surface and groundwater. Within this catchment plan NVZ's have been defined near Swaffham, Bury St Edmunds and Moulton.

The responsibility for defining the catchment zones using computer modelling was that of the NRA. However, the actual implementation of the scheme is the responsibility of the Ministry of Agriculture, Fisheries and Food. Consultation with farmers affected has now been completed and an appeals procedure has now been set up. It is expected that the scheme will be implemented commencing around 1997.

Issue 13(1)(b): Contamination of groundwater by ammonia - British Sugar

Routine sampling of groundwater from a number of boreholes on the site have taken place. A study of the loss of water through the base of the lagoons will commence during the summer so that an estimate of the potential load of pollutant entering the aquifer can be made.

Issue 13(2)(a): Groundwater contamination by solvents - Honington

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The levels of solvent within the aquifer have reduced gradually over the past decade. However, treatment of water at the source still requires air stripping to remove solvents. While RAF Honington is a known potential source, there are other possible sources for the solvent contamination. While routine sampling will continue, the downward decrease in solvent levels at present suggest that the priority should be downgraded to low.

Issue 13(2)(b): Groundwater contamination by solvents - Mildenhall

Approximately 140 site inspections have been carried out within the Mildenhall area to identify sites storing or using solvents.

All site occupiers have been given general pollution prevention advice and specific guidance on handling solvents.

Solvent contaminated soil has been removed from several sites and in the past year we have instigated legal proceedings against one company for groundwater pollution.

Contamination of the aquifer to the cast of the air base has originated from one or more sources on the adjacent industrial site. A potable supply has been seriously polluted and the owners will be spending approximately £500k to provide treatment to the water to ensure that it meets all drinking water standards.

The NRA has recently completed (end of March) 4 new boreholes to investigate movement of solvent within the aquifer. Two of these boreholes have been drilled to the base of the aquifer (35 metres) to ascertain whether there are high concentrations of contamination.

A research and development project will commence in the year 1995/6 to investigate the data collected and recommend the potential for, and the cost of remediation.

Issue 13(2)c): Contamination of groundwater by solvents - Industrial Estate, Bury St Edmunds

Monitoring and regular sampling of the site continues. No further capital work is intended.

Issue 13(2)d): Groundwater contamination from fuel - RAF Mildenhall

DWS(USAF) are undertaking a detailed study of the airfield to investigate the extent of contamination due to fuels.

Issue 13(3): Groundwater contamination by pesticides

Elevated levels of pesticide have been found in a number of boreholes. The origin of the pesticide is not thought to be from one source but is probably due to long term use on roads, verges and other amenity areas.

The use of pesticides on the air base has been limited for a number of years. However, investigations in the area will be carried out during the summer of 1995.

Issue 13(4): Groundwater contamination from Waste Disposal Sites - Ingham, Barton Mills

No further work at present - low priority.

Issue 13(5): Impact of Waste Disposal Sites generally on Water Quality

The NRA is assisting the DOE project investigating leachate movement from waste sites - ongoing through 1995.

Issue 14: Little Ouse & River Lark - oil discharges from sewers

An intensive programme of site inspections within Thetford, Mildenhall and Bury St Edmunds providing pollution prevention advice to industries will have heightened awareness and hopefully reduced the number of oil related pollutions.

Liaison with AWS is ongoing to identify and prioritise surface water sewers which historically suffer from oil pollutions with a possible view to installing oil interceptors.

Oil boom anchor points are being installed at strategically important bridging points to reduce the extent of oil pollution in the Lark. This will allow rapid deployment of oil booms downstream of major town and industrial areas.

Issue 15: High Nitrate Concentrations in the River Wissey

During 1994 MAFF produced proposals for nitrate vulnerable zones which included the River Wissey catchment upstream of Stoke Ferry abstraction point. The NRA were involved in checking boundaries and supplying data for MAFF.

Investigations into non-agricultural sources are continuing, with 19 farm site inspections, and 5 commercial industrial sites completed in 1994.

Issues 16 & 17: Future growth in abstraction demands cannot be met from groundwater or surface water

The Regional Water Resources Strategy "Water Resources in Anglia: A sustainable strategy for Secure Water Supplies and a better Water Environment" was published in September 1994. This outlines the NRA's current view of the Region's water resources and how they are used, the best estimates of current and future water demands and the scope for improving the water environment. This report changes the view of water for this catchment.

The Strategy identifies the need for a new Major Storage Reservoir, but not until year 2006. The two possible sites are Great Bradley (outside this catchment) and the Fens at Feltwell. Both of these sites would use water from the Ouse at Denver. The NRA have compared the two sites and reported their views. It is now up to a developer, probably a Water Supply Company to plan and promote the reservoir. The NRA will be involved at planning application (Public Inquiry) stage and the abstraction licensing stage.

Progress is continuous with respect to the better management of water resources by the user. The water supply companies have continued programmes of leakage control and established policies about water metering. The farmers have recognised the benefit of storing winter water in reservoirs and industrial users have examined water reuse within their premises.

Issue 18: Transfer of water from the major watercourses into IDB drains via 'slackers' is not controlled by the Water Resources Act

There has been no change to the legislation. However, there has been continued cooperation between the IDBs and NRA with respect to this issue.

Issue 19: "In River Needs" are not quantified and minimum acceptable flows need to be determined

A pilot study in the River Wissey has been completed. The findings of this and other studies nationally are being assessed to determine the methodology to determine "In River Needs".

The Rivers Lark and Little Ouse have been identified as priority rivers to be assessed once the methodology has been determined and it is intended to carry out these studies during 1995/96.

Issue 20: Catchment areas for wetland sites of conservation value need to be defined

The Regional R & D study to define the methodology for defining catchment areas, spending £30,000 over two years, is near to completion. The consultants have submitted a draft report and the final conclusions are expected soon.

The scheme by the NRA in conjunction with English Nature, spending over £100,000, to install hydrometric monitoring equipment in key wetland conservation sites has started. The contractor will be appointed in March 1995 to drill monitoring boreholes during 1995/96. The water level monitoring will begin once the boreholes are completed.

There are fifteen wetland sites to be monitored in this catchment : East Harling Common, East Wretham Heath (meres), Foulden Common, Great Cressingham Fen, Kenninghall & Banham Fens, Middle Harling Fen, Stanford Training Area (meres), Swangey Fen, Thompson Common, Blo Norton and Thelnetham Fens, Cavenham/Ickingham Heaths, Hopton Fen, Pashford Poors Fen and Weston Fen.

Issue 21: Transfer of water from the River Lark to Cut-Off Channel for Amenity and Environmental purposes

This work depends on the resolution of Issue 19 and a feasibility study may still be possible in 1996/97.

Issue 22: Possible reduction of the Ely-Ouse MRF at Denver

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The River Ouse Management Project Team, set up to review all issues within the Ely Ouse, Great Ouse and Bedford Ouse river system, is making progress and they will produce their initial report during 1995/96.

Issues 23, 24, 26 and 40(1): River habitat classification and restoration of degraded in-stream and riparian habitat enhancement

The CMP identified the need to classify river sections using the Rivers Environmental Database.

All main rivers have been classified, in 500 metre sections, as being either of high conservation value and therefore requiring conservation habitat, or being degraded and therefore requiring habitat enhancement or full restoration.

This classification has been further refined to develop a prioritised schedule of sites suitable for habitat restoration.

During 1994/95 habitat restoration work was carried out on the River Little Ouse at Knettishall which included both in-stream and riparian enhancement works and on the River Sapiston at Bardwell which involved the restoration of a former mill channel and additional main river habitat improvements. Further enhancement projects are scheduled for completion during 1995/96.

Issue 25(1) - (3): Degraded in-stream habitat on navigable rivers

A review of our weed cutting method was carried out for the River Wissey and a trial carried out on the basis of continual "mowing" of the weed rather than carrying out two specific cuts per annum.

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This involved the use of one weed boat travelling up and down the river cutting the centre third of the channel, throughout the weed cutting season, leaving the fringe vegetation uncut until the very end of the season.

The advantages of this method are that the weed is cut as it grows and the formation of large rafts of weed is avoided. Weed "clippings" are so small that they can be allowed to float away without the need for weed removal. Fringe vegetation is left uncut throughout the season giving positive environmental benefits.

Costs are very similar to those of the traditional two cuts per season method. (1995/96).

Issue 25(4): Degraded in-stream habitat on navigable rivers

The soft option engineering solutions depend on the outcome of the Ely Ouse Flood Defences investigation (Issue 41(4)) and will be installed as and when appropriate.

Issue 26(1): River corridor habitat diversity on embanked watercourses

Grass cutting operations are constantly reviewed. Consideration is now given to the sensitivity of particular areas and seasonal variations. Experiments are also being carried out with grass cutting programmes staged over two years, such that some areas are only cut in alternate years thus keeping down the growth of coarse vegetation and satisfying both flood defence and environmental requirements.

Issue 27(1): Loss of wet grassland

The CMP identified a need to re-create areas of wet grassland adjacent to rivers. This work is to be progressed as an integral part of river restoration projects.

No specific works have been carried out during 1994/95 to achieve this objective. An increase in wet grassland will however be achieved with the construction of a small weir as part of the Cressingham Mill project in Breckland. The area affected is riverside meadow and is currently in the Environmentally Sensitive Area scheme for riverside grassland.

Opportunities to develop this type of project will be sought in 1995/96, but any works will be on a priority basis within the wider river restoration objectives.

Issue 28: Persuade Planning Authorities to adopt NRA Model Policies/Statements in Development Plans

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A good degree of success has been achieved in the more recent Development Plans.

Two Local Plans were commenced some years ago and contain little by way of NRA policies.

Impending reviews of these plans will offer the opportunity to remedy this situation.

Issue 30: The extension of navigation on the River Little Ouse

Navigation on the River Little Ouse currently ends at Brandon Staunch. Historically the navigation extended upstream to Thetford. Whilst it is unrealistic, and environmentally undesirable, to fully restore this navigation, the opportunity to extend navigation to Brandon Town Centre was recognised.

A successful bid was made for additional DoE money to co-fund, with flood defence, a new structure which both alleviated a flood defence problem, and create a new lock permitting navigation to Brandon Town Centre.

The additional funding allowed the feasibility phase of this project to be brought forward from 1995/96 to 1994/95. Works commenced in 1994/95, with completion of the project now scheduled for June 1995.

Issue 32: Navigation facilities

The CMP identified to need to review the provision of facilities for use by boat users.

As part of a regional review of navigation management within the Anglian Region, a customer survey of all NRA registered boat users was carried out. Approximately one quarter of all NRA Anglian Region registered craft are moored on the Ely Ouse system.

Increased provision of short term moorings, waste disposal sites, water points and pump-out facilities all score highly in customer responses.

Additional short term moorings at Ely and Stretham are included within the 1995/96 navigation capital programme. A separate project has also been established for the strategic siting of additional waste disposal and water point facilities.

Issue 33: Boat safety standards

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Boat safety checks have continued throughout the system to ensure compliance with the relevant safety standard.

Discussions have continued at a national level between navigation authorities to develop and introduce national navigation safety standards.

This will require a change in legislation and is therefore unlikely to occur within 1995/96.

Issue 36: Standards of Service for Flood Defence

Although this project is running approximately three months late, the Standards of Service exercise is now drawing to a conclusion.

This will provide a geographical information database of comprehensive information to enable the assessment of risk of Planning and Development issues as well as prioritisation of our own maintenance works.

Issue 37: Opportunities for increased recreational use of NRA land

NRA have significant land ownership within the Ely Ouse catchment, predominantly within the lowland, fen area of the catchment. In line with national policy the objective will be to increase the level of recreational use of this land.

A review of existing public access to NRA land was carried out with a view to linking existing rights of way using NRA land. This review highlighted the Cut-Off Channel as a valuable link route between existing footpaths which at present has no public access, and also offers the possibility of creating a 45km linear footpath.

A recreation capital project commenced in 1994/95 to create a new public footpath along the whole length of the Cut-Off Channel, from Barton Mills in Suffolk to Denver in Norfolk. To date the route has been mapped, consulted with various district and borough councils and access gates purchased. It is proposed to install the access gates during 1995 and 1996.

Issue 38: Litter collection on NRA-owned land

Roswell Pits, NRA-owned fishing lakes and ponds at Ely, were cleared of litter due to their high amenity value.

Newmarket No 1 Drain was cleared of litter as a one-off exercise due to significant public concern.

Issue 39(2): Ensure new development does not exacerbate existing or cause new flooding problems

Responses are made to planning applications which have drainage run-off implications or which are located in flood risk areas. Technical assessments are made of schemes to satisfy planning conditions relating to these issues and pre-planning advice given to developers/consulting engineers.

Issue 41(1): Thetford Coffee Mill

Increased capacity has been achieved by removal of an intermediate wall and improving access in the Coffee Mill. Telemetry is due to be installed shortly.

Issue 41(2): Mildenhall Control Structure

Automation of Gas Pool sluice is due for completion in 1994/95 and commissioning in 1995/96.

Repairs to the Turf lock are to be put in hand during 1995/96. The work will include bank refurbishment alongside Dencora properties.

Issue 41(3): Beck Bridge

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Works to demolish the old bridge to increase discharge capacity are almost complete.

Issue 41(4): Ely Ouse Flood Defences

The detailed final draft appraisal for this project is expected in April 1995.

Detailed design is expected to start shortly with some site works anticipated in 1995/96. Most of the works identified are bank protection works to prevent erosion of banks, etc., most of the embankments having been identified as being up to the required standard already.

Issue 41(6): Soham Lode

The feasibility study is complete and options are now being evaluated. Indications are that there will be no capital project, but some revenue works are likely.

Issue 41(8): Denver Sluice Improvements

Semi-automation of the centre gate of the A G Wright Sluice is due to be commissioned in 1995/96.

Issue 41(9): Brandon Staunch

Works commenced in 1994/95 in order to provide automated flood discharge at the existing sluice.

Issues 40 and 42: Poor fish populations in the Little Ouse Catchment

The CMP identified two separate issues relating to poor fish stocks in the River Little Ouse, one requiring a fish pass at Brandon, the other seeking habitat enhancements on the upper reaches of the catchment.

The fish pass issue has been resolved, at least in part, by the construction of a navigation lock at Brandon Staunch. The movement of fish via locks is a recognised phenomenon, particularly at spawning time. It is hoped that sufficient level of lock use will be achieved to allow significant fish movement. Changes in the fish population will be monitored during routine surveys and the need for any additional fish pass reviewed in the light of future fish population levels.

Habitat enhances: works have been carried out on the River Little Ouse and River Sapiston as part in Breckland River Restoration project. In addition to a general conservation **backer**, this work will be of direct benefit to the fish population by increased provision in holding pools and spawning sites. Fish populations will again be monitored as part of routine fishery surveys.

New Issue 41(10): Thetford No 1 Staunch

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The currently manually operated sluice gates at the staunch need to be automated to improve the standard of service for flood defence.

New Issue 41(11): Denver Sluice Big-Eye

The Big-Eye sluice is at the tidal limit of the Ely Ouse and is only a single line of defence. In the event of malfunction, emergency dam boards have to be lowered into position. The current dam boards require refurbishment.

New Issue 41(12): River Wissey Banks

Since the construction of the Cut-Off Channel, the flood-carrying capacity of the lower reaches of the Wissey has become less important and maintenance standards have declined to a point where the banks have become heavily overgrown with scrub.

A study is to be carried out in 1995/96 to establish a programme of tree and scrub removal over approximately three years. Included in the study will be the identification of areas where planting may be carried out to lessen the impact of the works.