

# catchment management plan



## **IDLE & TORNE** **first annual review** **November 1996 - July 1998**



**ENVIRONMENT  
AGENCY**

Our ref: LT/IT/LEAP  
Your ref:

Date: As Postmark



**ENVIRONMENT  
AGENCY**

25 NOV 1998

Rosie Croxford (LEAPs Officer)  
Environment Agency  
Welsh Region  
Llys Afon, Hawthorn Rise, Haverfordwest  
Pembrokeshire SA61 2BQ

Dear Sir or Madam

#### **IDLE AND TORNE CMP 1ST ANNUAL REVIEW**

Please find enclosed a copy of the Idle and Torne Catchment Management Plan (CMP) 1st annual review. CMPs were used by the former National Rivers Authority to manage the water environment in an integrated way. The objective was to work towards a healthy and diverse water environment, managed in an environmentally sustainable way, balancing the needs of all water users. This work has been continued by the Environment Agency.

This is the first and final annual review to be produced for the Idle and Torne area. Its purpose is to highlight the progress that has been made by the Agency and others, in tackling the issues outlined in the Action Plan.

The Agency is committed to its programme of local environmental action and is building on the strengths of the CMP process in its Local Environment Agency Plans (LEAPs). As this CMP draws to a close I would like to announce the commencement of the LEAP process for the Idle and Torne plan area, in March 1999. To this end I would like to ask you to fill in and return the attached form. This will enable us to update our consultee database and ensure that the right people are contacted to partake in the LEAP process.

Yours faithfully

**ALISON HEPWORTH**  
**LEAPs Planner**

Cont/d..

Environment Agency  
Trentside Offices, Scarrington Road, West Bridgford, Nottingham, NG2 5FA  
Tel: 0115 945 5722 Fax 0115 981 7743





## IDLE AND TORNE LEAP CONSULTEE RECORD UPDATE

Please tick the following and fill in the details below. Please return to the address below by 31 January 1999. This is to ensure that our database holds the correct names and addresses of all those who are interested in being consulted in the LEAP process for the Idle and Torne area.

.....Yes, I am still interested in being involved in the LEAP process for the Idle and Torne Area

.....Yes, but please make the following amendment(s) to your database

.....No – please remove me from your database.

(please tick where necessary).

NAME (to be added).....

NAME (to be deleted).....

JOB TITLE.....

COMPANY NAME.....

ADDRESS.....

.....

.....

.....

Please return the completed form to:

Alison Hepworth  
LEAPs Planner  
Environment Agency, Midlands Region  
Lower Trent Area  
Trentside Offices, Scarrington Road  
West Bridgford  
Nottingham NG2 5FA

Please ensure you have returned your form by January 31<sup>st</sup> 1999.

## IDLE AND TORNE

### PREVIOUS CMP DOCUMENTS

Rivers Idle and Torne Catchment Management Plan (CMP)  
Consultation Report and Summary Document - November  
1995

Idle and Torne CMP Action Plan - October 1996

If you wish to make enquiries about, or would like copies of,  
any of these documents please contact the LEAPs Planner,  
Alison Hepworth, at the address below:-

Environment Agency, Midlands Region  
Lower Trent Area  
Trentside Offices, Scarrington Road  
West Bridgford  
Nottingham NG2 5FA

Telephone:(0115) 945 5722

Fax: (0115) 981 7743

e mail:alison.hepworth@environment-agency.gov.uk



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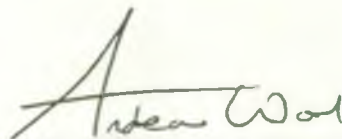


## Foreword

Catchment Management Plans (CMPs) were used by the former National Rivers Authority (NRA) to manage the water environment in an integrated way. The plans considered a particular river catchment, identified different uses and activities within the area and highlighted the problems and issues that needed to be resolved. The objective was to work towards a healthy and diverse water environment, managed in an environmentally sustainable way, balancing the needs of all water users. This work has been continued by the Environment Agency.

This is the first and final annual review to be produced for the Idle and Tame. Its purpose is to highlight the progress that has been made by the Agency and others, in tackling the issues identified in the Action Plan. This was made possible by the commitment of all involved, and greatly enhanced by the collaborative and partnership approach adopted. I am pleased to report that good progress has been made, reflecting the commitment of all those involved in the plan.

The Agency is committed to its programme of local environmental action and is building on the strengths of the CMP process in its Local Environment Agency Plans (LEAPs). This is the final progress report for the catchment, bringing to a close this Catchment Management Plan. The Idle and Tame LEAP will incorporate the area covered by the Idle and Tame CMP and will follow on from it, beginning in March 1999. There will be an informal issues consultation in May 1999, followed by the launch of the Consultation Draft in November 1999.



**Andrew Wood**  
**Lower Trent Area Manager**  
**Midlands Region**

## EXECUTIVE SUMMARY

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### General

Good progress has been made since October 1996 in implementing the actions set out in the Action Plan. Of the 117 actions planned, 20 actions have been completed successfully. Many of the actions have involved organisations working in collaboration with others.

### Notable achievements

- \* Impact of contaminated land upon the environment - progress has been made at the Mansfield Colliery Site.
- \* A site at Workshop has now been issued with a discharge consent specifically to control nitrogen loading to ground.
- \* Measures have been identified to remove/reduce the nutrient inputs to Kingsmill Reservoir. A comprehensive review of the Idle catchment data was completed in 1997. The catchment was provisionally passed for inclusion in the action programme under the EC Urban Waste Water Treatment Directive (UWWT) Directive (91/271/EEC).
- \* Inadequate foul and surface water disposal at a number of small developments - surveys of the following sites have been undertaken:
  - a) West Carr Industrial Estate
  - b) North Anston Industrial Estate
  - c) Hellaby Industrial Estate
  - d) Warmsworth
- \* Consulting engineers working on behalf of the Agency have identified lengths of Main rivers which would be affected by mining subsidence and schemes have been carried out by Coal Operators.
- \* An ecological assessment has been undertaken, including landscape, and a programme of enhancement work has been determined at agreed sites. A tree planting scheme, has been achieved on the River Torme with local action group assistance in the Tickhill and Rossington area. The Agency has also contributed to the setting of targets for agri-environment schemes in the area.
- \* Four otter holts have been constructed on the River Idle in February 1998. Planting of shrub cover along the lower River Idle was undertaken and the River Torme was surveyed for vole population in Spring 1998. Site management plans have also been completed for Agency owned land and Hatfield Chase has been surveyed for rare or scarce plant species.
- \* There is now a Parish Council Millenium Project to bring in a new public Right of

Way and associated bridge to link two existing circular walks on the River Torme. Facilities for recreational users have also been provided at the Agency owned site on the Warping Drain.

- \* In 1996/97 designations of cyprinid status were achieved providing a total of 46km on the River Idle from the Meden/Maun confluence to the River Trent confluence; and 29km on the River Meden from downstream of the Maun confluence to the River Idle and on the River Ryton from Shireoaks to the River Idle.

### Developments

- \* The Agency has commissioned two reports on the impact of colliery closures: one from Wardell Armstrong and one from the British Geological Survey (BGS).
- \* Specific alterations have been recommended to the River Quality Objectives (RQOs) for the following watercourses: Stainforth and Keadby Canal from the River Don Navigation to Thorne Lock; the stretch of the Mother Drain from Baltby STW to Potteric Pumping Station.

### Disappointments

- \* The existing Floodplain Mapping Programme is currently running behind schedule. Investigations from the Easter 1998 floods may delay the programme further.
- \* The next stage of the work on the River Idle rehabilitation project has been delayed pending the modelling of the river and the rehabilitation feasibility study of the River Torme has not yet commenced due to financial constraints.
- \* No monies were available in 1997/98 to carry out the assessment of past stocking levels and extent of brown trout, or the genetic analysis of native brown trout. This work has been rescheduled for 1998/99.
- \* There has been no interest expressed in Issue 34 (Need to protect the archaeological resource of the area) and the Agency is unlikely to find the money to progress it.
- \* Issue 35, the limitation of the existing flow capacity of the River Torme and the resultant flood risk to adjacent low lying land and the need to balance surface water discharges from new development, was originally included in the plan at the request of Doncaster MBC. The proposed development which would have required improvements has now been omitted from the Unitary Development Plan. The investigation will therefore not be carried out at this time.

## VISION FOR THE CATCHMENT

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The Action Plan, published in October 1996, set out a vision for the catchment. The following is quoted from the Action Plan.

*The catchment of the Rivers Idle and Torne covers an area of 1307 km<sup>2</sup> within north Nottinghamshire and south Humberside and has a resident population of about 625,000 people.*

*Man has impacted on the catchment since medieval times and the area has a rich industrial and archaeological heritage. The heavily urbanised and industrial headwaters contrast sharply with the very flat, open and rural lower reaches nearer to the confluences with the River Trent. Man's influence is also apparent here where drains have been cut and rivers re-routed and straightened to produce highly productive agricultural areas.*

*The catchment is predominantly rural with the exception of the headwaters, as described above. The River Idle and its tributaries flow through the heavily industrialised towns of Mansfield and Worksop, then through the rolling forested areas of Sherwood Forest and the Dukeries. The River Torne rises on the edge of Doncaster and flows through the flat areas of low land, characterised by the Isle of Axholme, Thorne and Hatfield Moors.*

*The Agency's vision for this catchment is to achieve sustainable use of the water resources within the catchment area, particularly in the lower reaches where water level management is of prime importance.*

*The key objectives of the plan are therefore to :*

- \* Establish a balance between the demands of irrigation and abstraction and the needs of the environment.*
- \* Ensure that the quality of minewater discharged to the rivers is of a standard appropriate to the needs of downstream users.*
- \* Initiate and promote proposals for the improvement of habitats for fisheries and conservation.*
- \* Ensure that the standard of flood protection is appropriate to the needs of the adjacent land use, consistent with the vision.*

*The achievement of this vision is dependant on the committed and enthusiastic cooperation of others. Some objectives are common goals, while others may require a degree of compromise between differing demands on the resources of the catchment. To achieve a shared vision we need to work in partnership with local authorities and many other agencies, environmental groups, individuals and all those who have the interests of the catchment at heart.*



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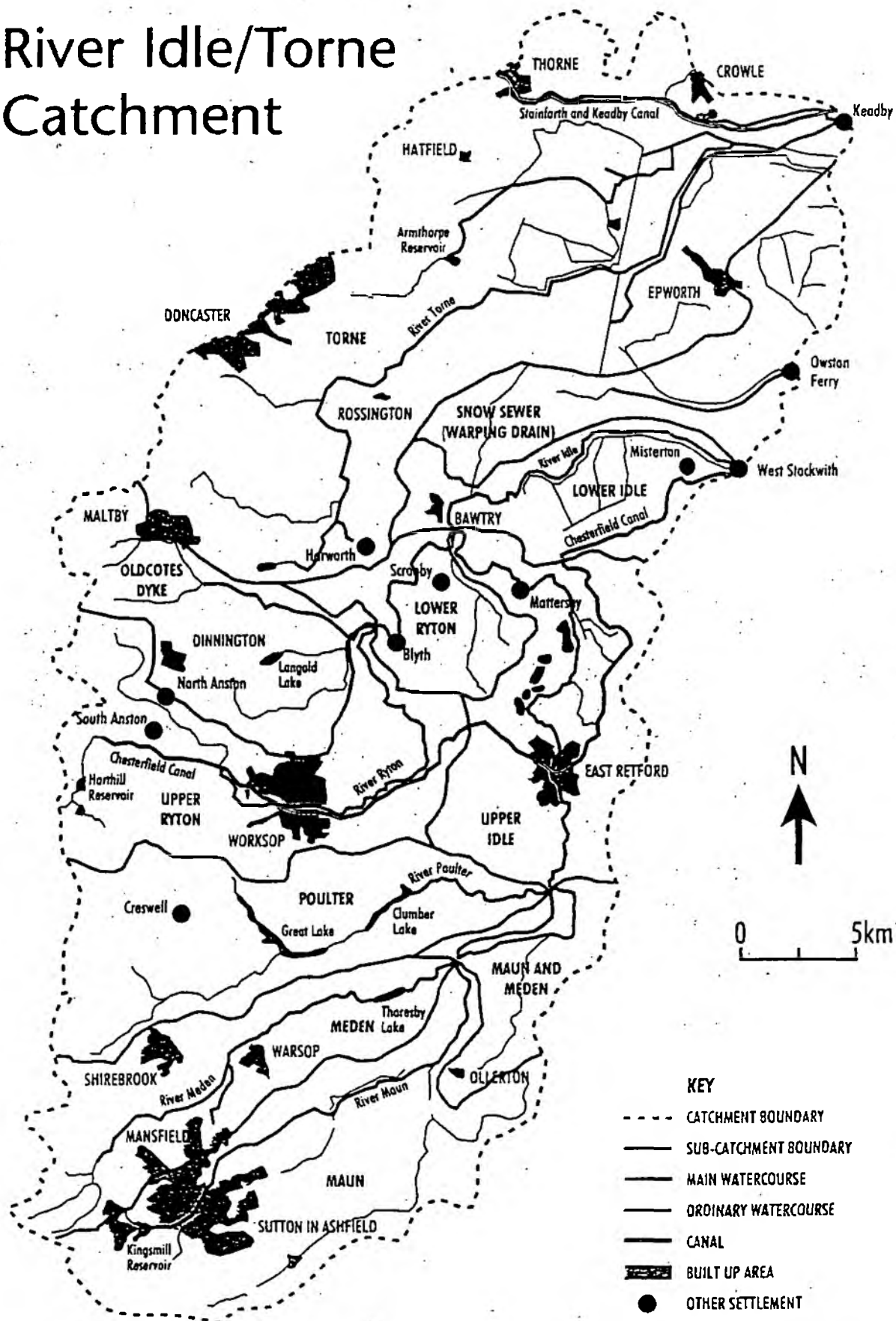
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# Map of the Catchment

## River Idle/Torne Catchment



## 1.0 INTRODUCTION

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This is the first annual review to be produced for the Idle and Torne Catchment Management Plan (CMP). It follows on from the Action Plan produced in October 1996. This review deals with the water environment only and covers the period November 1996 to July 1998. The publication of this annual review has been delayed due to a combination of reasons, but aims to wrap up the CMP process for the Idle and Torne. CMPs are being replaced by Local Environment Agency Plans (LEAPs), which have a wider remit and look at air, waste and land issues, as well as water and wildlife. LEAP coverage of the Idle and Torne catchment is scheduled to start in March 1999. This means that this is the last review for the CMP, but all issue actions outstanding at March 1999 will be incorporated into the LEAP until they are completed.

### 1.1 Environment Planning

CMPs were the means by which the former National Rivers Authority (NRA) undertook integrated planning for the water environment. The Agency's overall aim is to protect and enhance the whole environment thus contributing to the world wide environmental goal of sustainable development. Environmental planning as a whole is a principal tool in delivering this objective. This forward planning in the Agency is being undertaken for the full spectrum of Agency responsibilities and it will build on the CMP process. The plans are called Local Environment Agency Plans (LEAPs) and include the new functions of Integrated Pollution Control (IPC) and Waste Regulation.

Integrated Pollution Control was introduced by the Environmental Protection Act (1990). It is a method by which complex industrial processes having the greatest potential for causing pollution are regulated. This includes the regulation of sites, which use, store or dispose of radioactive material. A main feature of IPC is that it takes account of all releases to air, water and land, in order to achieve the best overall environmental outcome.

Waste Regulation includes the setting of consistent standards for waste management practice to regulate the treatment, storage, movement and disposal of controlled waste.

### 1.2 Local Environment Agency Plans (LEAPs)

Local Environment Agency Plans (LEAPs) are the means by which the Agency will translate our environmental strategy (as outlined in "An Environmental Strategy for the Millenium and beyond") into real world targets for delivery at a local level.

Our aim in producing LEAPs is to produce a local agenda of integrated action for environmental improvement so that we can deploy our resources locally to best effect and optimise benefit for the local environment. Each LEAP will provide a framework to enable:

- \* setting of local targets for improving environmental quality;
- \* translation of national policies and priorities into local actions;
- \* assessment of the costs and benefits of proposed actions;
- \* partnership for solving environmental issues, in connection with Local Agenda 21 initiatives; and



- \* promotion of the Agency's own work through education and our interface with local planning authorities.

The timetable for achieving LEAP coverage for all the catchments in England and Wales is shown in Table 1 below. In the interim to coverage by LEAPs, the Agency is committed to preparing action plans and annual reviews for CMP consultation reports that were launched before 1 April 1996.

**Table 1 - Lower Trent Area CMP/LEAP timetable**

STAGE	EREWASH CMP	IDLE/ TORNE CMP	SOAR LEAP	DERBY- SHIRE DERWENT LEAP	LOWER TRENT & EREWASH LEAP	IDLE/ TORNE LEAP
Start	Jul 94	Apr 95	Oct 96	Apr 97	Mar 98	Mar 99
Issues consultation	Oct 94	Aug 95	May 96	Jun 97	Jun 98	May 99
Consultation report	Jan 95	Nov 95	Apr 97	Feb 98	Feb 99	Nov 99
Statement of consultation	-	-	Jun 98	Dec 98	Nov 99	Aug 00
Action plan	August 95	Oct 96	Jun 98	Dec 98	Nov 99	Aug 00
1st annual review	Oct 96	Oct 98	Jul 99	Feb 00	Jan 00	Oct 01
2nd annual review	May 98	-	Jul 00	Feb 01	Jan 01	Oct 02
3rd annual review	-	-	Jul 01	Feb 02	Jan 02	Oct 03
4th annual review	-	-	Jul 02	Feb 03	Jan 03	Oct 04

Monitoring the implementation of identified actions is an important part of the process and this is achieved by annual reviews. In the CMP process four annual reviews have normally been undertaken prior to producing a further consultation report. Due to the requirement to produce a LEAP to plan for all the Agency's responsibilities by the end of 1999, this process is being brought forward for the Idle and Torne. The area covered by the Idle and Torne CMP will be incorporated into the Idle and Torne LEAP, the process of which will commence in March 1999. Any outstanding actions from the Idle and Torne CMP will be incorporated in the LEAP process and highlighted until actions have been achieved in the environment.

In this the first review since the publication of the CMP Action Plan, 20 actions have been completed successfully and progress has been made on a further 44 of the total of 117 actions planned. A number of very notable achievements have been made by the Agency and in partnership with other organisations. The integrated planning process takes an open approach and seeks to create a sense of ownership of our environment, so that environmental risks can be minimised and benefits secured. Your involvement in this process is welcomed. Your comments are sought on progress to date and indeed on your

perception of the continuing appropriateness of identified actions.

### **1.3 The Idle and Torme CMP**

The first stage of the CMP was a consultation process in August 1995 on a list of issues drawn up by the project team for the CMP. This was followed by the production of a consultation report which was launched in November 1995. This outlined the issues within the catchment and suggested options for action to resolve them. Following a period of consultation, an action plan was produced in October 1996. This included a programme of actions for improvements to the water environment. It outlined areas of work and investment proposed by the Agency and others over a five year period.

An important part of the CMP process is to monitor the action plan to ensure that targets and actions are achieved and that the plan continues to address relevant and significant issues in the catchment in an appropriate manner. This first annual review is the outcome of the monitoring process, covering the period from November 1996 to July 1998.

The action tables in Section 3.0 have been carried forward from the action plan. Certain actions are reported as no longer being issues in the CMP. Some of these are because the actions involve routine work of the Agency and as such are ongoing. Since these form part of the day to day activities of the Agency, they are not reported upon in this review and will not be included in the future. Table 2 indicates which these actions are, grouped by reason for exclusion.

**Table 2: Actions not reported upon in this annual review**

<b>Reason for exclusion</b>	<b>Action numbers</b>
Involve routine, day to day work of the Agency	3.2, 19.2, 20.2, 26.1, 26.2, 27.5, 28.2, 29.7, 29.8, 30.2, 34.1, 34.2, 34.3, 34.4
Work no longer required	9.2
No response to action	29.3
Issue included at request of outside organisation. Now dropped	35.1

### **1.4 A brief description of the catchment**

The area covered by the catchment plan varies from the flat land of the Isle of Axholme and Hatfield Chase in the north east, to the rolling, wooded Dukeries and heavily urbanised headwater areas around Mansfield and Doncaster.

The Rivers Idle and Torme rise between Nottingham and Doncaster and flow in a generally north - easterly direction to join the River Trent at large land drainage pumping stations at West Stockwith and Keadby respectively. Major tributaries of the Idle are the Rivers Ryton, Meden, Maun and Poulter. The catchment of the Snow Sewer, also known as the Warping Drain has also been included in this catchment plan and flows into the River Trent at Owston Ferry. Most of the land in the lower reaches of the catchment lies below the River Trent high tide level and is protected by an extensive system of floodbanks.

The history of fenland drainage within the Isle of Axholme is a reminder of man's struggle to produce food from land which, left to the forces of nature alone, would be submerged beneath an inland sea. From medieval times, drains have been dug to control flooding. Works in the 17th Century brought large scale land drainage improvements. These works have continued and the early gravity drainage has been replaced by a comprehensive system of pumped drainage, which supports high grade agricultural land within the catchment area.

Major settlements in the catchment include Sutton in Ashfield, Mansfield, Worksop, East Retford and a small portion of the suburbs of Doncaster and Rotherham. With the exception of Worksop and East Retford, all the major urban conurbations in the catchment are located on the headwaters of the catchments rivers.



## 2.0 SUMMARY OF PROGRESS

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Considerable progress has been made on a number of issues within the plan.

There are 35 issues highlighted in the plan with a total of 117 actions over the 5 year plan period. Of these, 20 have been completed.

Of the 97 actions remaining, good progress or projects underway to schedule has been reported for 44 actions. A total of 18 actions are not reported on in this annual review (see Table 2 for details). Of those 79 actions remaining, 17 have been incorporated into other actions, while a further 8 are awaiting the outcome of another action in order to be initiated. Disappointing or nil progress was reported for only 10 actions. More details are given below.

### 2.1 Notable achievements, developments and disappointments

#### Notable Achievements

- \* Issue 5 - Liaison arrangements are being developed with MPAs, concerning dewatering activities associated with mineral extraction, stressing our commitment to protecting the aquatic environment. As a result of problems with dewatering, this is now in the DETR licensing review. The Agency has had detailed and worthwhile discussions with Nottinghamshire, Derbyshire and Leicestershire Mineral Planning Authorities regarding the problems which dewatering is causing. These discussions were appreciated on both sides and further dialogue is required, especially in the light of the DETR review.
- \* Issue 6 - Management of water releases from high level watercourses of the Isle of Axholme into lowland drains and the licensing of subsequent abstractions. An ecological survey was carried out in August 1997 of representative sections of Main River, IDB drains and farmers drains. A database of the 1997 and all previous surveys has also been set up (1986-1997).
- \* Issue 9 - Elevated nitrates in groundwater - virtually the whole of the sandstone outcrop in Nottinghamshire is designated as a Nitrate Vulnerable Zone (NVZ). The 1997 review is largely complete and new designations are proposed in the plan area. Littleworth has been proposed as a new, separate NVZ as a result of this review.
- \* Issue 10 - Impact of contaminated land upon the environment - there has been a successful application to DETR for SCA funding to pay for a further investigation into the migration of contaminants from the former REXCO plant at the former Mansfield Colliery site. Some progress has been made. A contract has been let to the Groundwater Protection and Restoration team of Professor David Learner of Sheffield University to undertake a groundwater modelling exercise by the end of October 1999. This exercise is to predict the path of the contaminant (phenols) plume in the groundwater. This work will be verified by the drilling of a small number of exploratory boreholes. The location of these boreholes will be based on the results of the modelling exercise. It is anticipated that these organic

contaminants will have naturally biodegraded to a large degree and as such, they do not represent a threat to groundwater supplies in the area.

- \* Issue 11 - Potential impact of the spreading of industrial effluent to land - a site at Worksop has now been issued with a discharge consent specifically to control nitrogen loading to ground. A site at Hodsock has been the subject of extensive discussions internally in the Agency, with a view to more formal control of effluent application to land close to the site.
- \* Issue 14 - Need for optimisation of the compensation flow from the public water supply source at Manton into the River Ryton - a joint Study to assess the amount of water being pumped out of the Manton Shaft (required as compensation flow in the River Ryton in order to protect the water environment) has now been completed and trial compensation flows are now being monitored. A time limited licence has been issued to Severn Trent Water Ltd (STWL) (for the abstractors from the Chesterfield Canal) and the environmental impact is being monitored. The conditions on the Time Limited Licence will be reviewed when the Licence is considered for the next stage of its time limitation to be determined.
- \* Issue 15 - Eutrophication in the catchment - measures have been identified to remove/reduce the nutrient inputs to Kingsmill Reservoir. The decision was made 1996/7 to divert the effluent, thus removing all treated and storm effluent from Kingsmill Reservoir. Sutton in Ashfield Sewage Treatment Works (STW) effluent was diverted 12 May 1998. A tighter consent is to come into force to improve effluent and the improvements to the upstream sewerage system will commence later in 1998. A comprehensive review of the Idle catchment data was completed in 1997. The catchment was provisionally passed for inclusion in the action programme under the European Commission Urban Waste Water Quality Treatment (EC UWWT) Directive (91/271/EEC). It is now with the Department for the Environment, Transport and the Regions (DETR) for the final decision.
- \* Issue 16 - Impact of discharge of minewater from current coal mining operations - a specific study was undertaken at the Welbeck Colliery site by the Agency to assess the impact of minewater discharge under a "dynamic" consent issued in 1995. This consent allows variable rates of discharge, dependant upon the upstream river flow, minewater chloride levels and minewater ammonia levels.
- \* Issue 18 - Inadequate foul and surface water disposal at a number of small developments - surveys of the following sites have been undertaken:
  - a) West Carr Industrial Estate - was surveyed as part of a pollution prevention campaign involving the catchment zone for the Public Water Supply Source (PWS) source at Ordsall. This involved visiting each individual site to establish their method of chemical/oil storage and waste disposal arrangements.
  - b) North Anston Industrial Estate - was surveyed as part of a pollution prevention initiative following repeated problems of oil pollution of a balancing pond serving the surface water system for the estate. All sites were visited to establish what oils were stored on site and what arrangements were made for their safe storage. All sites have been issued with the Agency's Guidance Notes on Oil Storage.
  - c) Hellaby Industrial Estate - a similar problem to the North Anston site occurred at this site and some investigations have been undertaken in the past to establish

ownership and responsibilities for the balancing pond serving the site.

d) Warmsworth - a pollution problem was identified in the watercourse taking the surface drainage from the site. The biology of the watercourse (Howbeck Dyke, a tributary of Warmsworth Beck) was found to be widely different upstream and downstream of a culverted section running water under the estate. Several factory sites were visited and enquiries made to establish possible organic sources of pollution. A result of this has been an improvement in the downstream quality, both biologically and chemically.

- \* Issue 20 - Groundwater quality is at risk - Source Protection Zones (SPZs) have been defined around major PWS boreholes. Definition of the zones will assist with the pollution prevention work of the Agency.
- \* Issue 21 - Effects of coal mining subsidence on the water environment - consulting engineers working on behalf of the Agency have identified lengths of Main rivers which would be affected by mining subsidence. Schemes have been carried out by the Coal Operators on the River Maun upstream of Ollerton, the Rivers Meden and Maun upstream of Conjure Alders and fissure repairs have been completed on both the Rivers Meden and Maun. The Mining subsidence study in the Bondhay Dyke catchment has been completed and remedial action has been taken by the Coal Authority.
- \* Issue 24 - The need to reinstate and maintain the characteristic wildlife communities, landscape features and processes of the Rivers Idle and Torne - we have worked with partners to assess ecological value. An ecological assessment has been undertaken, including landscape, and a programme of enhancement work has been determined at agreed sites. A tree planting scheme, costing £18,000 has been achieved on the River Torne with local action group assistance in the Tickhill and Rossington area. The Agency has also contributed to the setting of targets for agri-environment schemes in the area.
- \* Issue 27 - Biodiversity Action Plans are required for the catchment for key species - Four otter holts have been constructed on the River Idle in February 1998. Planting of shrub cover along the lower River Idle was undertaken and the River Torne was surveyed for vole population in Spring 1998. Site management plans have also been completed for Agency owned land at Bawtry, Torne Wood and Warping Drain. Hatfield Chase has been surveyed for rare or scarce plant species.
- \* Issue 29 - Lack of recreational facilities and public access to rivers - there is now a Parish Council Millenium Project to bring in a new public Right of Way and associated bridge to link two existing circular walks on the River Torne. Facilities for recreational users have been provided at the following Agency owned sites: Warping Drain - car parks have been provided, as well as disabled angler platforms, and on the River Torne Agency land at Auckley has been utilised for the footpath mentioned above.
- \* Issue 31 - - The inappropriate EC designation to some fisheries reaches - In 1996/97 designations of cyprinid status were achieved providing a total of 46km on the River Idle from the Meden/Maun confluence to the River Trent confluence; and 29km on the River Meden from downstream of the Maun confluence to the



River Idle and on the River Ryton from Shireoaks to the River Idle.

### Developments

- \* Issue 12 - The need for and setting of appropriate River Quality Objectives (ROOs) to meet the needs and uses of the river catchment - specific alterations have been recommended: the Stainforth and Keadby Canal from the River Don Navigation to Thorne Lock could be safely improved from Rivers Ecosystem (RE) Objective RE4 to RE3; the stretch of the Mother Drain from Baltby STW to Potteric Pumping Station needs improving from RE5 to RE4. However, this improvement can only take place if Baltby STW makes the final Asset Management Plan 3 (AMP3) listing.
- \* Issue 17 - Impact of colliery closures - the Agency has commissioned two reports: one from Wardell Armstrong and one from the British Geological Survey (BGS). The BGS report is about the likely effects of stopping pumping of minewater which currently goes on throughout the catchment. The reports make recommendations and the Agency is deciding how to proceed. Further reporting/investigation will be necessary to determine the likely points of outbreak of minewater to aquifers or surface water. There is a need to agree with RJB and the Coal Authority on the long term maintenance arrangement for any dewatering of old mines.

### Disappointments

- \* Issue 9 - Elevated nitrates in groundwater - with the introduction of Nitrate Vulnerable Zones (NVZs), it is highly unlikely that further Nitrate Sensitive Areas (NSAs) will be designated. In July 1998, MAFF announced the closure of the NSA subsidy scheme for farmers.
- \* Issue 23 - The extent of floodplains are not clearly defined - the existing Floodplain Mapping Programme is currently running behind schedule. Investigations from the Easter 1998 floods may delay the programme further. The floodplain mapping for the Rivers Idle and Torne may therefore be delayed from the current 2000/2002 estimate.
- \* Issue 24 - The need to reinstate and maintain the characteristic wildlife communities, landscape features and processes of the Rivers Idle and Torne - The next stage of the work on the River Idle rehabilitation project has been delayed pending the modelling of the river and the rehabilitation feasibility study of the River Torne has not yet commenced due to financial constraints.
- \* Progress has been delayed on the River Idle Fisheries, Ecology and Recreation (FER) strategy, to complement the Flood Defence strategy, pending a suitable format.
- \* Issue 25 - Potential conflict between interests in the pumped rivers - due to the complexity of the Hatfield Chase WLMP, a delay was experienced in drawing up the contract documents for the plan. The contract has now been let to external consultants and the plan is expected by March 1999. Work has commenced on assessing the impact of let-back water to the Warming Drain. Ecological surveys

are being carried out to provide base line data. This work needs to be finalised before a WLMP can be written.

- \* Issue 29 - Lack of recreational facilities and public access to rivers - there have been no discussions with Local Authorities (LAs) about the promotion of recreational use or provision of facilities.
- \* Issue 30 - The need to protect and maintain the genetic integrity of native brown trout in the upper reaches of the River Idle tributaries - funds were not available in 1997/98 to carry out the assessment of past stocking levels and extent of brown trout, or the genetic analysis of native brown trout. This work has been rescheduled for 1998/99.
- \* Issue 31 - The inappropriate EC designation to some fisheries reaches - no progress has been reported for either the Chesterfield Canal or the Stainforth and Keadby Canal.
- \* Issue 32 - The perceived predation and possible need for the control of piscivorous birds in affected fisheries - the results of the National R&D project are still awaited and no progress has been made on this issue.
- \* Issue 34 - Need to protect the archaeological resource of the area - there has been little interest expressed in this issue relating to the Meden/Maun floodmeadows and the Agency is unlikely to be able to fund this project.
- \* Issue 35 - The limitation of the existing flow capacity of the River Torne and the resultant flood risk to adjacent low lying land and the need to balance surface water discharges from new development - this issue was originally included in the plan at the request of Doncaster Metropolitan Borough Council (DMBC). Allowance was made for a joint Agency/ DMBC study to be carried out. The proposed development which would have required improvements has now been omitted from the Unitary Development Plan. The investigation will therefore not be carried out at this time.

## 2.2 Summary of the Agency's routine activities within the catchment

The strategic nature of the CMP as a long term planning tool, directing manpower and financial resources to resolving environmental problems, means that the plan is not designed to reflect fully on routine work within the catchment. Our everyday work, of which examples are given below, commits substantial resources to managing the water environment.

Enforcement and routine monitoring work are important in achieving the Agency's objective to progressively improve the environment, and protect against risk of pollution. These operations and regulatory responsibilities form the basis of our work.

Routine monitoring work includes site inspections throughout the plan area. Our routine activities include:

- \* regulation of industrial processes with the greatest pollution potential;

- \* regulation of the disposal, keeping and use of radioactive waste;
- \* regulation of the keeping, treating, movement and disposal of controlled waste;
- \* regulation of the remediation of contaminated land designated as special sites;
- \* the responsibility for water resources includes licence determination, charging, policing and enforcement. Through these responsibilities an integrated approach is taken that aims to strike a balance between the needs of abstractors and the environment;
- \* fisheries - fish surveys, attendance of fish kills, restocking;
- \* flood defence activities cover regulation (including issuing of land drainage consents), enforcement, maintenance and improvement works, and emergency response;
- \* the Agency works closely with local planning authorities through its planning liaison function, commenting on planning application consultations and proposals associated with Local Development Plans.

It is important to stress that those actions removed from this review because they form part of the routine work of the Agency will still be addressed. This plan is not designed to reflect fully on the routine work of the Agency in the plan area.



### 3.0 ACTIONS UPDATE

The following action plan tables have been reproduced from Section 5 of the Idle and Tame Action Plan (October 1996). The tables have been updated to show progress and any changes that have occurred since the action plan was published. Progress for each action is summarised below each table.

#### 3.1 Additions and Alterations

Due to the evolving nature of the action plan, some changes are inevitable as a result of activities since the publication of the action plan. Some routine actions form part of the every day protection policies of the Agency. These activities receive a reduced profile as CMPs and their successor documents LEAPs become increasingly issue lead. These actions are listed in Table 2.

#### 3.2 Issues

The issues are presented with a number of actions, a target timetable and the identification of responsible parties. Whilst every effort has been made in both the action plan and annual review to reflect the current priorities and cost of schemes, it must be recognised that these have been developed within existing economic and political constraints. Progress will depend on the resources available and recognising the competing priorities of all organisations involved.

#### 3.3 Action plan tables

The following tables report on progress for the catchment. Table 3 explains the abbreviations used:

**Table 3 - Key to action plan tables**

AB	Archaeological Bodies	IDB	Internal Drainage Boards
Abs	Abstractors	KBT	Keep Britain Tidy Group
AggCo	Aggregate Company	LA	Local Authority
ALL	All interested Parties	LG	Local Groups
AMP3	Asset Management Plan 3	MAFF	Ministry of Agriculture, Fisheries and Food
AWS	Anglian Water Services	MPA	Mineral Planning Authorities
BW	British Waterways	NCC	Nottinghamshire County Council
CA	Coal Authority	NFU	National Farmers Union
CLA	Country Landowners Association	NSA	Nitrate Sensitive Area
CO	Coal Operators	NVZ	Nitrate Vulnerable Zone
CC	County Councils	PC	Parish Council
CoCo	Countryside Commission	RED	Redevelopers
DC	District or Borough Councils	RL	Riparian Landowners
DMBC	Doncaster Metropolitan Borough Council	RQO	River Quality Objective
DETR	Department of the Environment, Transport and the Regions	RSPB	Royal Society for the Protection of Birds
EA	Environment Agency	SSSI	Site of Special Scientific Interest
EH	English Heritage	STWL	Severn Trent Water Ltd
EN	English Nature	WT	Wildlife Trusts
FER	Fisheries, Ecology and Recreation	YWS	Yorkshire Water Services
FWAG	Farming and Wildlife Advisory Group	WLMP	Water Level Management Plan

#### KEY

- > More than
- = Action in the year indicated (numeric entry given if costs known)
- U Unknown at this time
- R No additional costs to annual budgetary provision (recurring or routine)

# Issue 1- Impact of British Waterways abstraction from the River Ryton at Worksop for the Chesterfield Canal.

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
1.1 Secure formal operating agreement between Agency and BW.	BW/EA		R	==	==	==				John Ratcliffe
1.2 Review of other sources of water to feed canal (see note below).										
1.3 Upgrade existing instrumentation (flow measurement for canal feeders and tributaries of the River Ryton).	BW	EA	25	25						John Ratcliffe
1.4 Investigate group licence for abstractors from the Chesterfield Canal (see note below).	EA	BW					==			John Ratcliffe
<b>Progress</b>										
1.1	An operating agreement is being negotiated and trials will be carried out with British Waterways to ensure that the resources within the Ryton catchment are used to their full potential to ensure both the River and the Chesterfield Canal have their water needs made available. (Note wet weather delayed the trial).									
1.2	Incorporated into action 1.1.									
1.3	An ultrasonic flowgauge has been installed on the main feeder at Kilton. This action is now complete.									
1.4	Action may be removed, if it is no longer considered to be a practical option, but may still be a possibility as part of the final agreement with British Waterways. Dependant upon progress of Action 1.1.									

## Issue 2 - Lack of water resources to meet demand.

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
2.1 Assess the feasibility of developing additional sources to meet demand, but noting the need to always protect the overall water environment (of new resources - winter storage reservoirs, conjunctive use of surface and groundwater).	EA	STWL AWS YWS NFU CLA Others	R		=	=	=			Gordon Davies
2.2 Maintenance of groundwater to sustain calcareous flush communities at SSSIs.	EA	EN RL	R			=				Rob Cunningham
<b>Progress</b>  2.1 Discussions have been held with the Water Companies regarding long term abstraction in this area. Investigations have been proposed under AMP3. A conference is to be held later this year about "winter fill reservoirs".  2.2 Groundwater mapping investigation underway at present on the magnesian limestone as a basis for further studies in groundwater recharge and therefore resource availability.										

### Issue 3 - Reduced groundwater levels in the Sherwood Sandstones Groundwater Management Units, particularly the Doncaster Unit.

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
3.1 Detailed hydrogeological investigation to assess the hydraulic continuity between the wetland sites in the superficial deposits and underlying sandstones.	EA	EN	60	=	=	=	=			Rob Cunningham
3.2 Monitor long term changes in groundwater levels in the Sherwood Sandstones and streamflows (see note below)										
Progress										
3.1	Hydrogeological investigation has commenced. Monitoring points have been installed to collect the data and the data collection period is two years.									
3.2	Action to be removed, since it has been incorporated into Agency routine day job.									

**Issue 4 - Hydraulic relationship between rivers and some public water supply boreholes, adjacent to rivers, is imprecisely known.**

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
4.1 Detailed site specific investigation involving streamflow measurement water quality studies, geophysical loggings etc.	STWL AWS	EA	U? 10	=			10			Elfyn Parry
<b>Progress</b>  4.1 To be part of a national programme, which is being considered to investigate this topic.										



# Issue 5 - Dewatering activities associated with mineral extraction.

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
5.1 Develop and continue liaison arrangements with MPAs to take into account the need to protect the broad water based environment when considering planning applications (during quarrying and restoration phases).	EA	MPA AggCo	R	=	=	=	=	=	=	Elfyn Parry
5.2 Identify where there is a requirement for the use of conservation notices in respect of potential mineral extractions issued under Section 199 of the Water Resources Act 1991.	EA		R	=	=	=	=	=	=	Elfyn Parry
<b>Progress</b>										
5.1	Liaison arrangements are being developed with MPAs, stressing our commitment to protecting the aquatic environment. As a result of problems with dewatering, this is now in the DETR licensing review.									
5.2	The Agency has had detailed and worthwhile discussions with Nottinghamshire, Derbyshire and Leicestershire Mineral Planning Authorities regarding the problems which dewatering is causing. These discussions were appreciated on both sides and further dialogue is required, especially in the light of the DETR review.									

**Issue 6 - Management of water releases from high level watercourses of the Isle of Axeholme into lowland drains and the licensing of subsequent abstractions.**

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
6.1 Improve resources model of system draining to Keadby and to maintain water quality standards and targets.	EA		60	=	=	=				John Adams
6.2 Carry out ecological survey of drains to monitor effect of changing water levels on aquatic ecology of system.	EA	IDB EN	4		4					Val Holt
6.3 Implement recommendations of data review project - install level monitoring and flow monitoring instrumentation.	EA	IDB EN	107	40	67					John Adams
6.4 Produce WLMP for Hatfield Chase drainage system.	EA	IDB CoCo	46			46				Val Holt
6.5 Development of operating rules for individual 'let back' sites.	EA	IDB	U?	=	=	=				Mick Walker
6.6 As a result of action 6.4 - drawing up/implementing a new licensing policy for surface water abstraction.	EA	Abs	U?				=	=	=	John Adams

**Issue 6 continued:**

**Progress**

- 6.1 Work on the model for the Isle of Axeholme is ongoing pending the collection of accurate data in 1998/99 and 1999/00.
- 6.2 An ecological survey was carried out in August 1997 of representative sections of Main River, IDB drains and farmers drains. A database of the 1997 and all previous surveys has also been set up (1986-1997). Action completed.
- 6.3 Some instrumentation has been installed and the practicalities of other installations is to be reviewed in 1998/99 (this year).
- 6.4 Tender document and tender brief has been prepared by an outside consultant for letting in 1998 (to be completed this year). Incorporates Action 33.3.
- 6.5 This forms part of the Water Level Management Plans (WLMP) for Hatfield Chase and the River Idle. Operating rules for individual "let back" cannot be completed until flow measurement data for the summers of 1998 and 1999 have been completed and evaluated. See Action 6.4.
- 6.6 This action cannot be progressed until actions 6.1 to 6.4 have been completed.

# Issue 7 - The loss of flow in the River Idle between Mattersey and West Stockwith and associated quality problems

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
7.1 Carry out detailed investigations using flow measurement and metering techniques of licensed abstractions (in terms of rate and time of occurrence). Detailed investigation is also required of the 'let back' abstractions.	EA	Abs	5		5					John Adams
7.2 Development of operating rules for individual 'let back' sites.	EA		U						==	John Adams
<b>Progress</b>  7.1 Primary investigation of "let back" extraction sites has been undertaken.  7.2 Progress on this action will depend upon negotiations following the completion of 7.1.										

## Issue 8 - Low flows in Rainworth Water

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
8.1 Identify and evaluate benefits from a flow augmentation scheme.	EA NCC	Rufford PC	R			==				Elfyn Parry
8.2 Define and agree most favourable option.	EA NCC	STWL	R			==				Elfyn Parry
<b>Progress</b>  8.1 This action is being progressed under AMP3.  8.2 A potential solution is being identified and justified.										



## Issue 9 - Elevated nitrates in groundwater

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
9.1 To assist in the review of the designation of aquifer outcrop as a NVZ.	DETR	MAFF EA	U	==	==					Andrew Pearson
9.2 To assist in the designation of Nitrate Sensitive Areas (NSAs) around specific boreholes, where appropriate (see note below).	MAFF	EA								Andrew Pearson
<p><b>Progress</b></p> <p>9.1 Virtually the whole of the sandstone outcrop in Nottinghamshire is designated as an NVZ. The 1997 review is largely complete and new designations are proposed in the plan area. Littleworth has been proposed as a new, separate NVZ as a result of this review. This action is now completed.</p> <p>9.2 With the introduction of NVZs, it is highly unlikely that further NSAs will be designated. In July 1998, MAFF announced the closure of the NSA subsidy scheme for farmers. This action to be removed.</p>										

## Issue 10 - Impact of contaminated land upon the environment

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
10.1 Work with LAs and others to achieve acceptable remediation of contaminated land sites.	EA	RED LPA	R	==	==	==	==	==	==	Rob Harper
<p><b>Progress</b></p> <p>10.1 <u>Mansfield Colliery Site progress</u> - there has been a successful application to DETR for SCA funding to pay for a further investigation into the migration of contaminants from the former REXCO plant at the former Mansfield Colliery. Some progress has been made. A contract has been let to the Groundwater Protection and Restoration team of Professor David Learner of Sheffield University to undertake a groundwater modelling exercise by the end of October 1999. This exercise is to predict the path of the contaminant (phenols) plume in the groundwater. This work will be verified by the drilling of a small number of exploratory boreholes. The location of these boreholes will be based on the results of the modelling exercise. It is anticipated that these organic contaminants will have naturally biodegraded to a large degree and as such, they do not represent a threat to groundwater supplies in the area.</p> <p><u>Vicar Water</u> - The Agency is also working with Newark and Sherwood District Council on their application for a borehole supply at Vicar Water.</p>										

# Issue 11 - Potential impact of the spreading of industrial effluent to land

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
11.1 Investigate appropriateness of regulatory controls for permanent discharges.	EA		U	==	==	==	==	==	==	Dave Briggs
<p><b>Progress</b></p> <p>11.1 <u>Workshop</u> - this site has now been issued with a discharge consent specifically to control nitrogen loading to ground.</p> <p><u>Hodsock</u> - this site has been the subject of extensive discussions internally in the Agency, with a view to more formal control of effluent application to land close to the site.</p>										

## Issue 12 - The need for and setting of appropriate RQOs to meet the needs and uses of the river catchment

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
12.1 Review the appropriateness of the RQO, given that there has been a translation from one system to another, to meet the needs and uses of the river system.	EA		R	==						Dave Briggs
12.2 Identify reaches where short term RQOs will be required and prioritise for submission on AMP3 programme.	EA		R	==	==	==				Dave Briggs
12.3 Obtain statutory WQO status.	DETR		U						==	Graeme Warren
<b>Progress</b>										
12.1	RQO appropriateness is assessed on an ongoing basis as water quality improves and consents are altered. Most RQOs are appropriate at present, given the existing consents and the pollutant loads which they allow to be discharged. RQOs are tightened where possible in tandem with the AMP process. Once the AMP3 listings are finalised, these will be reassessed.									
12.2	Specific alterations have been recommended: Stainforth and Keadby Canal from the River Don Navigation to Thorne Lock could be safely improved from RE4 to RE3; the stretch of the Mother Drain from Baltby STW to Potteric Pumping Station needs improving from RE5 to RE4. However, this improvement can only take place if Baltby STW makes the final AMP3 listing.									
12.3	Progress on this action depends upon progress on action 12.2.									

### Issue 13 - The need to prioritise sewage treatment and sewerage improvements

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
13.1 Monitor the implementation and effects on water quality of improvements agreed under AMP2.	EA		R	==	==	==	==			Dave Briggs
13.2 Review the quality effects of STP effluent discharge and identify priorities for future investment.	EA		R			==	==	==	==	Dave Briggs
13.3 See Action 13.2 note below.										
<b>Progress</b>										
13.1	This work was done specifically for Mansfield WRW by the Agency. Monitoring around AMP2 works was increased in some cases. Some AMP2 works have not yet commenced.									
13.2	This action provided the basis for the Agency work for AMP3, local recommendations for which were submitted in 1997. Recommended improvements have been refined and now rest with DETR to decide funding. (Incorporates Action 13.3)									
13.3	Incorporated into Action 13.2									



**Issue 14 - Need for optimisation of the compensation flow from the public water supply source at Manton into the River Ryton**

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
14.1 Joint Study to assess the amount of water being pumped out of the Manton Shaft that is required as compensation flow in the River Ryton in order to protect the water environment.	EA STWL		R	==						Elfyn Parry
14.2 Issue a licence for public water supply abstraction - as a consequence of Action 14.1.	EA	STWL	R	==	==					Elfyn Parry
<b>Progress</b>										
14.1 Study completed and trial compensation flows are now being monitored as a part of Action 14.2. Action completed.										
14.2 Time limited licence has been issued to Severn Trent Water Ltd (STWL) and the environmental impact is being monitored. The conditions on the Time Limited Licence will be reviewed when the Licence is considered for the next stage of its time limitation to be determined. Action completed.										

## Issue 15 - Eutrophication in the catchment

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
<b>a Kingsmill Reservoir</b>	EA		R	==						Dave Briggs
15.1 Identify measures required to remove or reduce nutrient inputs and prevent eutrophication including the development of blue/green algae.	STWL									
15.2 Divert and improve STW effluent, improve upstream sewerage systems.	STWL		3000	==	==	==	==			Graeme Warren
15.3 Remove basal silt. Investigation to be carried out by Ashfield DC.	DC		U	==						Graeme Warren
<b>b Other locations</b>										
15.4 Assess damage to SSSIs from eutrophication at the following locations: Rainworth Lakes, Hollinghill and Markland Grips, Potteric Carr, Maltby Low Common, Roche Abbey Woodlands, Sandall Beat, Anston Stone Wood and the Chesterfield Canal.	EA	EN	10			5	5			Craig Woodburn
15.5 Review data in 1997 for possible inclusion in action programme under EC UWWT Directive (91/271/EEC)	EA DETR.		R	==	==	==				Craig Woodburn
15.6 Removal of nutrients to prevent eutrophication as a result of Action 15.5 (costs depend on result of review).	EA STWL		U				==			Craig Woodburn

**Issue 15 continued:**

**Progress**

- 15.1 Measures have been identified to remove/reduce the nutrient inputs to Kingsmill Reservoir. The decision was made 1996/7 to divert the effluent, thus removing all treated and storm effluent from Kingsmill Reservoir. (See action 15.2). Action completed.
- 15.2 Sutton in Ashfield STW effluent was diverted 12 May 1998. Improved effluent and tighter consent to come into force. Improvements to upstream sewerage system will commence later in 1998.
- 15.3 No silt removed. No information on any investigation. Action to be removed.
- 15.4 No progress.
- 15.5 A comprehensive review of Idle catchment data was completed in 1997. The catchment was provisionally passed for inclusion in the action programme under the EC UWWT Directive (91/271/EEC). It is now with DETR for the final decision.
- 15.6 The timing of this action will depend upon the results of action 15.5. It may slip to 1999/2000.

## Issue 16 - Impact of discharge of minewater from current coal mining operations

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
16.1 Review impact of each discharge on watercourse and revise consents where necessary.	EA		R	==	==	==	==	==	==	Dave Briggs
16.2 Assess implications of future colliery closures (see Action 17.1 and note below).										
Progress										
16.1 . Review of consents, whether at colliery sites or with respect to other discharges which may be affected downstream, is an ongoing Agency process. This can include changes in operations at colliery sites change ie closure, tip washing activities and reworking as a landfill site, as at Thurcroft. Colliery consents have been modified across the catchment. Other strategic issues, such as Long Term Consents (LTCs) for sewage works are being reassessed in the light of colliery closures.										
A specific study was undertaken at Welbeck Colliery site by the Agency to assess the impact of minewater discharge under a "dynamic" consent issued in 1995. This consent allows variable rates of discharge, dependant upon the upstream river flow, minewater chloride levels and minewater ammonia levels.										
16.2 See Issue 17 Action 17.1. This action will be taken forward incorporated as part of Action 17.1.										

## Issue 17 - Impact of colliery closures

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
17.1 Investigate loss of resource to river and possible emergence of uncontrolled pollution within the catchment.	EA CA CO		45	15	15	15				Dave Briggs
17.2 Liaison mitigation measures to protect water quality. (cost dependant on Action 17.1 above).	EA CA		U				=	=	=	Dave Briggs
<b>Progress</b>										
17.1	The Agency has commissioned two reports: one from Wardell Armstrong and one from the British Geological Survey (BGS). The BGS report is about the likely effects of stopping pumping of minewater which currently goes on throughout the catchment. The reports make recommendations and the Agency is deciding how to proceed. Further reporting/ investigation will be necessary to determine the likely points of outbreak of minewater to aquifers or surface water. There is a need to agree with RJB and the Coal Authority on the long term maintenance arrangement for any dewatering of old mines.(Incorporates Action 16.2).									
17.2	Specific remediation measures are being taken where appropriate. One such scheme is that for Yorkshire Main (Edlington) Colliery, being discussed and investigated. Other measures will be dependant upon the assessment risks of Action 17.1 and the potential future closures by the current private operators RJB Mining and Midland Mining.									



# Issue 18 - Inadequate foul and surface water disposal at a number of small developments

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
18.1 Identify sites by undertaking pollution audit of businesses on each of the estates.	EA STW LA		R	==						Keith Boardman
18.2 Establish a plan for each site identified in Action 18.1 above.	EA LA		R	==	==	==				Keith Boardman
18.3 Establish a plan for the following categories of future developments:										
18.3.i sewage and effluent disposal facilities;	EA/LA		R	==	==	==				Keith Boardman
18.3.ii soil and chemical storage and handling facilities.	EA/LA		R	==	==	==				Keith Boardman
<b>Progress</b>										
18.1	The specific initiatives involving the local Council and STW Ltd have been undertaken to establish problems with cross connections involving sewage and surface water systems. No such problems have existed at any sites such as Hellaby, Warnsworth, North Anston and West Carr Industrial Estate at Retford. Action completed.									
18.2	Surveys of the above mentioned sites in Action 18.1 have been undertaken for other, more specific reasons. These are: a) <u>West Carr Industrial Estate</u> - this area was surveyed as part of a pollution prevention campaign involving the catchment zone for the Public Water Supply source at Ordsall. This involved visiting each individual site to establish their method of chemical/oil storage and waste disposal arrangements.									

Issue 18 continued:

Progress ( continued)

- 18.2      b)      North Anston Industrial Estate - this was surveyed as part of a pollution prevention initiative following repeated problems of oil pollution of a balancing pond serving the surface water system for the estate. All sites were visited to establish what oils were stored on site and what arrangements were made for their safe storage. All sites have been issued with the Agency's Guidance Notes on Oil Storage.
- c)      Hellaby Industrial Estate - a similar problem to the North Anston site occurred at this site and some investigations have been undertaken in the past to establish ownership and responsibilities for the balancing pond serving the site.
- d)      Warmsworth - a pollution problem was identified in the watercourse taking the surface drainage from the site. The biology of the watercourse (Howbeck Dyke, a tributary of Warmsworth Beck) was found to be widely different upstream and downstream of a culverted section running water under the estate. Several factory sites were visited and enquiries made to establish possible organic sources of pollution. A result of this has been an improvement in the downstream quality, both biologically and chemically. Action completed.
- 18.3i & ii      Appropriate provision for both these categories of development are sought by the Agency via the Planning Liaison process for new developments. In the specific case of Markham Moor, a first time sewerage scheme is to go ahead with the Rochley, West Drayton, Milton, West Markham, Sibthorpe and Markham Moor roundabout all to be sewered.

## Issue 19 - Impact of managed land drainage and peat cutting on water quality in the Tame catchment

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
19.1 Investigate further cause of pollution from land drainage and instigate pilot study on designated part of catchment to examine effects of changing pumping regime. To be instigated as part of Hatfield Chase WLMP.	EA		R	==	==	==	==	==	==	Phil Hukin
19.2 Control drainage related to peat cutting by consent or preferably recycling.	EA	Operator	R	==	==	==	==	==	==	
19.3 Develop water resources model for Isle of Axholme catchment.	EA		50			25	==	==		Craig Hatcher
<b>Progress</b> 19.1 Investigations as to the cause of the pollution are ongoing. A series of chemical and biological samples have been taken at different times of the year in an attempt to understand the problem better. A number of possible locations were identified to instigate a pilot study. The pilot study is now due to commence this winter. 19.2 This action will be done as part of the day to day work of the Agency and as such is to be removed and will not be reported on in future. 19.3 Data collection is ongoing. This action will complement the WLMP being done under Action 6.4, in order to develop abstraction policy for the area.										

## Issue 20 - Groundwater quality is at risk

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
20.1 Define Source Protection Zones (SPZs) around major PWS boreholes.	EA		150*	==	==	==				Chris Thomas
20.2 Undertake groundwater pollution prevention surveys within SPZs.	EA		U	==	==	==	==	==	==	
Progress										
20.1	*money to be spent regionally. The work has been completed, however refinements will take place during 1998. The production of maps will take place during the next 12 months. Definition of the zones will assist with the pollution prevention work of the Agency.									
20.2	Possible contamination sources within the catchment zones to Yorkshire Water Public Water Supply boreholes have been identified. This action is to be linked to Nitrate Vulnerable Zone (NVZ) work which is routine, day to day work of the Agency. As such, it is to be dropped as an action and will not be reported upon in future.									

## Issue 21 - Effects of coal mining subsidence on the water environment

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
21.1 Identify future areas of mining activity and investigate the impact of subsidence where it affects Main Rivers and serve damage notices as necessary.	EA	CO CA RL	30	10	10	10				Roy Ladhams
21.2 Complete design and undertake mining subsidence remedial works on the River Idle at Gamston.	CA		850			850				Roy Ladhams
21.3 Undertake mining subsidence study in the Bondhay Dyke catchment.	EA		13	13						Elfyn Parry
<b>Progress</b>										
21.1 Consulting Engineers working on behalf of the Agency have identified lengths of Main rivers which would be affected by mining subsidence. Schemes have been carried out by the Coal Operators on the River Maun upstream of Ollerton, the Rivers Meden and Maun upstream of Conjure Alders and fissure repairs have been completed on both the Rivers Meden and Maun. A further remedial scheme is due to be completed at Spa Lane on the River Maun during 1998/9.										
21.2 A Land Drainage Consent has been issued for remedial works on the River Idle, but the proposed works have been delayed by protracted land negotiations. The scheme is due to be carried out in 1998/9.										
21.3 This study has been completed and remedial action has been taken by the Coal Authority. Action completed.										

Issue 22 - There is currently no flood warning scheme

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
22.1 Investigate the introduction of a flood warning scheme.	EA		5	1	4					Roy Ladhams
<p><b>Progress</b></p> <p>22.1 Following the completion of improvement schemes on the Rivers Torne and Idle, there are very few properties known to be liable to flood from main river in the catchment plan area. The high cost of improved telemetry to enable a flood warning scheme to be implemented cannot be justified. The five year Regional Strategy for Flood Warning currently being developed, stresses the need to improve existing systems before extending into new areas. There are therefore currently no plans to introduce a Flood Warning Scheme in either the Idle or Torne catchment at the present time. Action completed.</p>										

**Issue 23 - The extent of floodplains are not clearly defined**

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
23.1 Define the extent of floodplain to the 1 in 100 year return period by the construction of mathematical models and aerial survey.	EA	CoCo	300					100	200	Roy Ladhams
<p><b>Progress</b></p> <p>23.1 The existing Floodplain Mapping Programme is currently running behind schedule. Investigations from the Easter 1998 floods may delay the programme further. The floodplain mapping for the Rivers Idle and Tame may therefore be delayed from the current 2000/2002 estimate.</p>										



**Issue 24 - The need to reinstate and maintain the characteristic wildlife communities, landscape features and processes of the Rivers Idle and Tame**

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
24.1 Undertake rehabilitation of River Idle and rehabilitation feasibility of River Tame.	EA	CoCo	31	20	11					Val Holt
24.2 Work with partners to assess ecological value. Plan and undertake enhancement works where appropriate.	EA	CoCo LA	36	11	7	6	6	6		Val Holt
24.3 See Action 24.2 (and see note below).										
24.4 See Action 24.2 (and see note below).										
24.5 Investigate use of Countryside Stewardship grants for land management on both rivers.	FWAG MAFF EA		U		=	=	=	=	=	Val Holt
24.6 Develop FER strategies for both rivers in liaison with Flood Defence to identify activities and actions to improve their FER value.	EA	CoCo	R			=	=	=	=	Val Holt

**Issue 24 continued:**

**Progress**

- 24.1 Work on deflectors/ riffles and fish shelters has been undertaken. No further work will be done until the model of the River Idle is completed. The feasibility study on the River Tame has not yet commenced due to financial constraints.
- 24.2 Ecological assessment has been undertaken, including landscape, and a programme of enhancement work has been determined at agreed sites. A tree planting scheme, costing £18,000 has been achieved on the River Tame with local action group assistance in the Tickhill and Rossington area. NB This Action incorporates Actions 24.3, 24.4, and 27.11.
- 24.3 This action has been incorporated into Action 24.2.
- 24.4 This action has been incorporated into Action 24.2.
- 24.5 The Agency has contributed to the setting of targets for agri-environment schemes in the area. Action completed.
- 24.6 No progress on this action.

# Issue 25 - Potential conflict between interests in the pumped rivers

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
25.1 Produce WLMPs for Hatfield Chase and River Idle (between Bawtry and West Stockwith) to ensure wildlife, archaeological, recreational and agricultural interests are fully considered and protected where appropriate.	EA	IDB RL LA	10	10						Mick Walker
25.2 Implement recommendations from WLMPs.	EA		20		5	5	5	5		Mick Walker
25.3 Reconcile any differences between the WLMPs and any other interests.	EA	ALL	R			==				Mick Walker

**Issue 25 continued:**

**Progress**

- 25.1 Due to the complexity of the Hatfield Chase WLMP, a delay was experienced in drawing up the contract documents for the plan. The contract has now been let to external consultants and the plan is expected by March 1999. The Idle Plan is in it's final draft stage and will be ready for distribution after consultation with outside organisations.
- 25.2 The Idle Plan is in it's final draft stage and will be ready for distribution after consultation with outside organisations. Interim measures include dipwells in the Idle washlands, installation of gaugeboards, and a topographical survey of the SSSI.
- 25.3 To be addressed where necessary during 1998/9.

## Issue 26 - Control of alien/invasive plant species

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
26.1 Undertake surveys of all watercourses to identify problem areas (see note below).	EA						12			Val Holt
26.2 Undertake programme of eradication through spraying and mowing (see note below).	EA	LA BW						=	=	Val Holt
<b>Progress</b>  26.1 Surveys not done yet - this is not considered to be a problem at present (see note below).  26.2 Since there are no problems in the catchment, this Issue is to be removed. The Agency will continue to monitor rivers for invasive plants and take appropriate action if deemed necessary, as part of our routine, day to day work.										

**Issue 27 - Biodiversity Action Plans are required for the catchment for key species**

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
<b>Otters</b>										
27.1 Provide sprainting sites at suitable locations on rivers and build 4 otter holts on River Idle.	EA/EN /RL	LA RL	12		10	2				Val Holt
27.2 See Action 27.1.										
27.3 Undertake survey for otter movements.	EA/EN		22.5*		7.5	7.5	7.5			Val Holt
27.4 Encourage scrub cover on banks by sensitive river management.	EA/RL	RL	R		=	=	=	=	=	Val Holt
27.5 Ensure all use of fyke nets is monitored for use of otter guards (see note below).	WT/ EA									
<b>Voies</b>										
27.6 Evaluate riparian management to improve vole habitats.	EA RL		R	=	=	=	=			Val Holt
27.7 Survey catchment to assess vole population.	EA		10		5	5				Val Holt

<b>Issue 27 - continued:</b> <b>Other</b> 27.8 Undertake site management plans on all Agency owned land to protect conservation interests.  <b>Plants</b> 27.9 Survey and monitor watercourses known to have rare or scarce species.  27.10 Undertake programme of translocation of rare species.  27.11 Investigate the creation of wetland areas, especially on the Upper Tame, to encourage reed bed development.  <b>Bats</b> 27.12 Provide bat boxes on the network of pumping stations in the Hatfield Chase area.	EA		10	2.5	2.5	2.5	2.5			Val Holt
	EN/EA IDB		5		2	3				Val Holt
	IDB EA		5			5				Val Holt
	LA EA	EN Co Co MAFF	5	2	2	1				Val Holt
	EA IDB		4		2	2				Val Holt



**Issue 27 continued:**

**Progress**

- 27.1 Four otter holts have been constructed on the River Idle in February 1998. Sprainting sites are not considered necessary at this time. The River Tame is to be looked at 1998/9.
- 27.2 Action incorporated into Action 27.1.
- 27.3 \*£15,000 a year, shared with Upper Trent area of the Midlands Region of the Agency. This work was not undertaken in 1997/8. To be undertaken in partnership with voluntary organisations in 1998/9 and 1999/0.
- 27.4 Planting of shrub cover along the lower River Idle was undertaken in spring 1998.
- 27.5 It is considered that this work forms part of the routine, day to day work of the Agency and as such will not be reported upon in future. Action to be removed.
- 27.6 Evaluation of riparian management to improve vole habitats is ongoing within the river strategies.
- 27.7 The River Tame was surveyed for vole population in Spring 1998.
- 27.8 Site management plans have been completed for Agency owned land at Bawtry, Tame Wood and Warping Drain.
- 27.9 Hatfield Chase has been surveyed for rare or scarce plant species. See Action 6.2.
- 27.10 No progress on translocation.
- 27.11 This Action to be incorporated into Action 24.2.
- 27.12 Bat boxes for a new nursery area were purchased in February 1998. They will be installed at the end of the breeding season.

# Issue 28 - Litter and rubbish problems in and near rivers

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
28.1 Support local initiatives in clearing small watercourses, LA and Keep Britain Tidy Initiatives, and promote education and awareness of recreational users to highlight problems.	EA	LA/ KBT ALL	15	1	6	6	1	1		Craig Woodburn
28.2 Desilt stretches of watercourse that cause litter and rubbish to accumulate ie Old River Idle arm at Bawtry (see note below).										
28.3 See Action 28.1										
<b>Progress</b>										
28.1	No progress reported (incorporates Action 28.3).									
28.2	This watercourse is not Main river and as such the Agency has no powers regarding the removal of litter. On investigation, Agency staff report there is no rubbish problem at the site. Action to be removed.									
28.3	This Action has been incorporated into Action 28.1.									

# Issue 29 - Lack of recreational facilities and public access to rivers

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
29.1 Promote the creation of new footpath links on the Rivers Idle and Tame by consultation with the relevant local authorities.	EA LA RL	LG	R	=	=	=	=	=	=	Val Holt
29.2 See Action 29.12 (see note below).										
29.3 Investigate the provision of mooring sites on River Idle (See note below).	EA RL		R		=	=	=	=	=	Val Holt
29.4 See Action 29.12. (See note below).										
29.5 See Action 29.12. (See note below).										
29.6 See Action 29.12. ( See note below).										

Issue 29 continued:

ACTIONS	RESPONSIBILITY		TOTAL COST (£k)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
29.7 Protect conservation interests at sensitive sites (see note below).	EA/LA		R	=	=	=	=	=	=	Val Holt
29.8 Promote recreational use in the restoration proposals at mineral extractions sites (see note below).										
29.9 Support proposals for Greenwood Community Forest and other woodland initiatives (see note below).										
29.10 Provide facilities for recreational users on Agency owned sites: a) Bawtry; b) Warping Drain; c) River Idle; d) R. Tome.										
29.11 See Action 29.12 (see note below).	EA		15		5	5	5			Val Holt
29.12 Promote recreational use and provision of facilities through discussion of interested parties. Incorporates Actions 29.2, 29.4, 29.5 and 29.11.										
	LA/EA		12	2	5	5				Val Holt

Issue 29 continued:

Progress

- 29.1 Talks with local groups and DBMC have been initiated regarding the Upper Torme Way. There is now a Parish Council Millenium Project to bring in a new Public Right of Way and associated bridge to link two existing circular walks on the River Torme. There has been no progress on the River Idle.
- 29.2 There have been no enquiries relating to this provision. Action incorporated into Action 29.12.
- 29.3 There has been no response from the boat club regarding this action. Action to be removed.
- 29.4 No progress reported by EHL. Action to be incorporated into Action 29.12.
- 29.5 Action to be incorporated into Action 29.12.
- 29.6 Action to be incorporated into Action 29.12.
- 29.7 Action to be removed. This action is considered to be routine day to day activity of the Agency.
- 29.8 Action to be removed. This action is considered to be routine day to day activity of the Agency.
- 29.9 Support for this action is ongoing.
- 29.10 Progress: a) Bawtry - no progress b) Warping Drain - car parks have been provided, as well as disabled angler platforms c) River Idle - no progress d) River Torme - Agency land at Auckley has been utilised for a footpath.
- 29.11 The Agency has had no contact regarding this action. Action to be incorporated into Action 29.12.
- 29.12 Incorporates Actions 29.2, 29.4, 29.5 and 29.11. No progress.

**Issue 30 - The need to protect and maintain the genetic integrity of native brown trout in the upper reaches of the River Idle tributaries**

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
30.1 Determine genetic diversity of brown trout in river by assessing past stocking levels and extent and undertake genetic analysis of native brown trout.	EA		5			5				Jim Lyons
30.2 Restrict introduction of farmed trout into native populations (See note below)										
<b>Progress</b>										
30.1 No monies were available in 1997/8 to carry out this work. It has therefore been rescheduled for 1998/9.										
30.2 This action is considered to be routine day to day work of the Agency. Action to be removed.										

# Issue 31 - The inappropriate EC designation to some fisheries reaches

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
Determine whether the following stretches are suitable for designation.										
<b>31.1 River Idle</b>										
31.1.i) Meden/Maun confluence to Chainbridge Road (15km).	EA		R	=						Jim Lyons
31.1.ii) Chainbridge Road to Idle Stop Pumping Station (23km).	EA		R	=						Jim Lyons
31.1.iii) Idle Stop Pumping Station to River Trent confluence (8km).	EA		R	=						Jim Lyons
<b>31.2 River Meden</b>										
31.2.i) upper reach.	EA		R	=	=					Jim Lyons
31.2.ii) lower reach from d/s Maun confluence to River Idle.	EA		R	=	=					Jim Lyons
<b>31.3 River Ryton</b>										
31.3.i) Shireoaks to Ranby (11km).	EA		R	=						Jim Lyons
31.3.ii) Ranby to River Idle (18km).	EA		R	=						Jim Lyons
<b>31.4 Chesterfield Canal</b>										
31.4.i) Worksop to confluence with River Trent (37km).	EA		R	=		=	=	=	=	Jim Lyons
<b>31.5 Stainforth and Keadby Canal</b>										
31.5.i) Thorne to confluence with River Trent.	EA		R	=		=	=	=	=	Jim Lyons

**Issue 31 continued:**

**Progress**

- 31.1.i Cyprinid status achieved (1996/97). Action completed.
- 31.1.ii Cyprinid status achieved (1996/97). Action completed.
- 31.1.iii Cyprinid status achieved (1996/97). Action completed.
- 31.2.i Upper reach status achieved. Action completed.
- 31.2.ii Lower reach from d/s River Maun confluence to River Idle - status achieved. Action completed.
- 31.3.i Cyprinid status achieved (1996/97). Action completed.
- 31.3.ii Cyprinid status achieved (1996/97). Action completed.
- 31.4.i Worksop to confluence with River Trent, Pudding Dyke to Turner Wood - Cyprinid - unresolved. NB downstream of Worksop is split into two now.
- 31.5.i No progress.



## Issue 32 - The perceived predation and possible need for the control of piscivorous birds in affected fisheries

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
32.1 Await outcome of R & D project.	EA		R	=	=	=				Jim Lyons
32.2 Determine level of predation in rivers and still waters.	EA		U*				=			Jim Lyons
32.3 Establish methods of control.	EA MAFF	RL RSPB LA	U*					=		Jim Lyons
<b>Progress</b>  32.1 No progress. Still awaiting results of National R&D project.  32.2 Dependant upon completion of Action 32.1.  32.3 Dependant upon completion of Action 32.1 and 32.2.										

Issue 33 - Impact of letting tidal Trent water into the Warping Drain to sustain levels for abstraction

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
33.1 Investigate effects of saline water on invertebrate population water quality and fisheries and effect of higher water levels on riparian vegetation, wildlife and recreational use.	EA		25			14	11			Karen Miller
33.2 See Action 33.1 (see note below).										
33.3 Undertake a WLMP for Warping Drain.	EA		R			=	=	=	=	John Adams
33.4 Determine parameters under which it would be suitable for permitting the transfer of water.	EA		R				=	=	=	John Adams

**Issue 33 continued:**

**Progress**

- 33.1 Invertebrate, plant and water quality surveys are being undertaken in 1998 and 1999 to assess effects of salinity.
- 33.2 Original action 33.2 let under same contract as for Action 33.1. Action therefore incorporated into Action 33.1.
- 33.3 Progress on this action is dependant upon progress in Action 33.1.
- 33.4 Progress on this action is dependant upon results of Actions 33.1 and 33.3.

# Issue 34 - Need to protect the archaeological resource of the area

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
34.1 Carry out archaeological surveys when undertaking Environmental Appraisals on any Agency scheme (see note below).										
34.2 Promote national planning guidance and structure/local plan policies to protect archaeological interests (see note below).	EA		R	=	=	=	=	=	=	Val Holt
34.3 Further the understanding of the effect of dessication on archaeological resources (see note below).	LA AB		U	=	=	=	=	=	=	Val Holt
34.4 Survey flood dykes and flood measures of Meden and Maun to interpret historical use (see note below).	EA									

Issue 34 continued:

Progress

- 34.1 Action to be removed. This is considered to be part of the routine, day to day work of the Agency.
- 34.2 Action to be removed. This is considered to be part of the routine, day to day work of the Agency.
- 34.3 To be incorporated into WLMPs. See Actions 25.2, 25.3 and 6.4. This Action to be removed.
- 34.4 Action to be removed. There has been no interest expressed in this action and the Agency is unlikely to be able to find the money to progress it.

**Issue 35 - The limitation of the existing flow capacity of the River Torne and the resultant flood risk to adjacent low lying land and the need to balance surface water discharges from new development**

ACTIONS	RESPONSIBILITY		TOTAL COST (£K)	96/97	97/98	98/99	99/00	00/01	FUTURE	EA ISSUE LEADER
	LEAD	OTHER								
35.1 Investigate the possibility of providing improved use of existing flood plain areas or the construction of new areas (see note below).	EA DMBC.	CoCo	U	=						Roy Ladhams
<p><b>Progress</b></p> <p>35.1 Action to be removed. This issue was originally included in the plan at the request of Doncaster Metropolitan Borough Council. Allowance was made for a joint Agency/DMBC study to be carried out. The proposed development which would have required improvements has now been omitted from the Unitary Development Plan. DMBC has stated that they do not have any budget to contribute towards any investigation. They also stated that all current development proposals are within areas where on-site balancing will be necessary because of the limited capacity of existing pumping stations downstream. There are therefore no proposals to carry out an investigation at the present time.</p>										

#### 4.0 FUTURE REVIEW

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It is important to monitor the action plan, to ensure that targets and actions are achieved and that the plan continues to address relevant and significant issues in the catchment in an appropriate manner. This report summarises the progress made since the publication of the action plan in October 1996. It is now proposed that all outstanding actions from this CMP will be incorporated into the Idle and Torne LEAP, due to commence in March 1999, the draft consultation report for which will be launched in November 1999. By ensuring that all outstanding actions from this CMP will be incorporated into this LEAP, we aim to ensure that improvements to the local environment will continue.