

# THE UPPER NENE CATCHMENT MANAGEMENT PLAN



## FINAL PLAN - AUGUST 1994



ENVIRONMENT AGENCY

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NRA

*National Rivers Authority  
Anglian Region*

## VISION FOR THE CATCHMENT

The Upper Nene catchment is home to 520,000 people who rely on the water environment in many ways. The River Nene is a major source of water for domestic, industrial and, downstream of the catchment, agricultural purposes. Both its tributaries, and the Nene itself are valued as areas of amenity and conservation, in a catchment that has been, and is likely to continue to be, subject to considerable development pressures. The protection of public health and the natural water environment demands that:

- the quality of both ground and surface waters are not compromised.
- a sustainable and balanced use of water resources is achieved.
- an appropriate level of flood protection is afforded to people within the catchment.

These demands can only be fully met subject to the availability of funds and the willingness of "key players" to balance their needs with others. Ultimately compromise solutions to some problems will be found which will not satisfy all needs, but by working in partnership with interested organisations the National Rivers Authority aims to achieve a balanced improvement to the water environment.

The NRA's vision for this catchment is to resolve the issues identified within this report, key amongst these being:

- to gain support from the Planning Authorities for NRA policies and strategies to ensure new development is sustainable and does not cause detriment to the water environment.
- to improve the quality of rivers within the catchment many of which are eutrophic.
- to protect the quality of groundwater from the potentially adverse effects of landfill activity.
- to develop and implement water resource strategies to achieve the right balance between the needs of the water environment and those of the abstractors.
- to improve, maintain and enhance the catchments environmental assets.

It is our intention to develop strong links with local communities and their representatives to ensure their views are

respected and future development decisions respect this vision for the catchment.

## INTRODUCTION

Established in 1989, the NRA has as its role that of "Guardians of the Water Environment". As such, it is committed to protecting and improving the water environment and protecting people and property from flooding. Establishing a sound planning base for the development of river catchments is essential to their future management.

The rivers, lakes, estuaries and coastal waters of England and Wales have never before been subject to such large and, in some cases, rapidly increasing demands from the users of water. Many different uses interact or compete for water and will inevitably come into conflict with one another. The NRA is the major manager of the water environment in England and Wales and has the responsibility to reconcile conflicts between water users. Our Mission Statement expresses the following principles:

- We will protect and improve the water environment by the effective management of water resources and by substantial reductions in pollution.
- We will aim to provide effective defence for people and property against flooding from rivers and the sea.
- In discharging our duties we will operate openly and balance the interests of all who benefit and use rivers, groundwaters, estuaries and coastal waters.
- We will operate in a business like and efficient manner.

We have chosen to use Catchment Management Plans to translate these principles into action. Catchment management involves the NRA working with many



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people and organisations and using its authority to ensure rivers, lakes, coastal and underground waters are protected and where possible improved, for the benefit of present and future generations.

This plan describes our vision for the catchment, identifies problems and issues and proposes actions to resolve them. The plan also forms a framework for promoting two key aspects of environmental management- land use planning and water quality objectives.

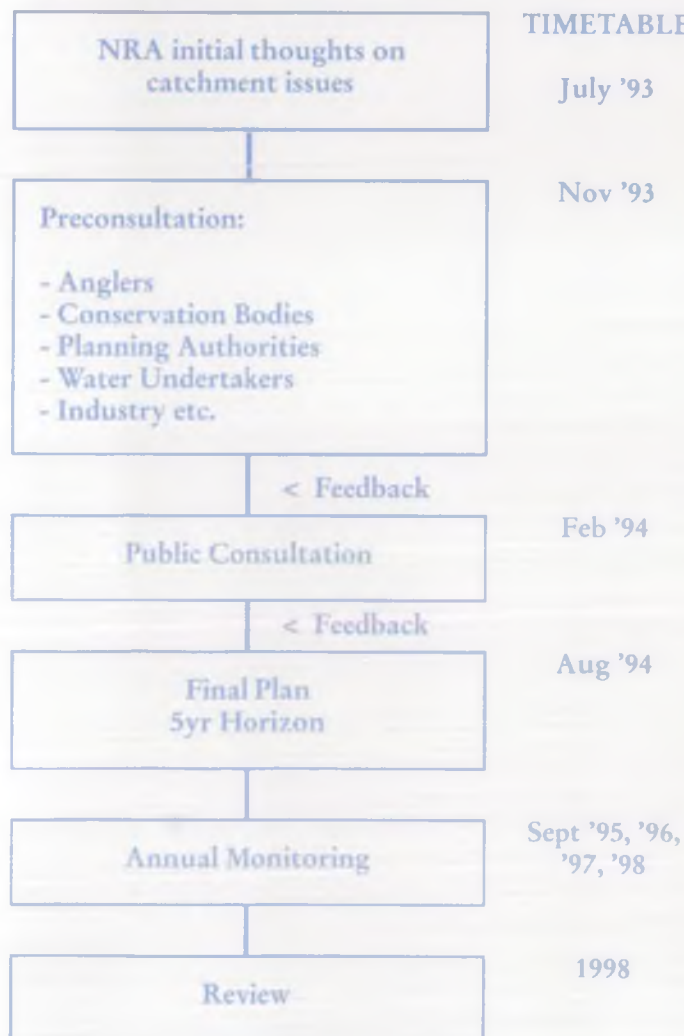
In the context of Catchment Management Plans the long term is 10 years, the medium term 5 years and the short term 1 to 2 years. The life of this plan is 5 years after which it will be reviewed. The identified actions will be subject to ongoing monitoring.

## REVIEW OF THE CONSULTATION PROCESS

Catchment Planning is a process through which we set out to identify all the water related problems and issues in a catchment through the medium of public and internal consultation, to identify possible courses of action for solving these issues and to produce a proposed plan of action to resolve them.

The planning process itself is identified below:

### TIMETABLE



The NRA published the Upper Nene Catchment Management Plan in February 1994 as a consultation document seeking comment from all those interested in the water environment.

As anticipated, conflicting views have been raised on some of the issues and options identified in the consultation document. This plan seeks to promote a way forward which balances the interests of all users having given due consideration to the views expressed.

The co-operation required from water users cannot be overstated and the NRA looks to work with users to balance interests and seek to improve our water environment.

Following the receipt of comments made during the consultation process the Consultation Document has been amended. The form of consultation involved pre-consultation with representatives of the major interests; the Consultation Launch to an invited public audience, T.V. and press coverage, and displays at local libraries. By the end of the consultation process 186 copies of the full, and 1700 copies of the summary documents have been issued. Sixteen written comments were received from representative organisations and members of the public i.e.

Royal Society for the Protection of Birds  
East Midland Sports Council  
National Farmers' Union  
Middle Level Commissioners  
Country Land Owners Association  
National Association of Boat Owners  
Northants County Council  
Middle Nene Sailing Club  
Ministry of Agriculture, Fisheries & Food  
English Nature  
Anglian Water Services Ltd  
British Steel  
Countryside Commission  
Inland Waterways Association  
Mr. Jones

As a consequence of the consultation process the NRA has gained a fuller appreciation of the different viewpoints of the issues identified and, where appropriate, this plan will reflect those views. One new issue has been included in this Final Plan - "Wet/Flood grassland has significantly declined in this catchment" becomes Issue No 4; actions for this new issue are included. One issue was deleted from the Consultation Document.

## OVERVIEW

The hydrological catchment of the River Nene extends from the uplands around Daventry to its outfall into the Wash. For the production of Catchment Management Plans the NRA has chosen to split this catchment in two, i.e. an Upper and Lower Section - the boundary between the two has been taken as the Anglian Water Services abstraction point at Wansford (see map opposite). The Final Plan for the Lower Nene was completed in June 1994.



The catchment is predominantly rural with major population centres at Northampton, Wellingborough, Corby, Daventry, Kettering and Rushden. Significant urban development over the past 3 decades looks set to continue. Agricultural land use is evenly split between pasture and arable farming; industry is diverse, no longer being dominated by the shoe and leather factories, the major employment in the catchment being from the service sector.

Changes in land use both from urban development and changes in farming practise can bring with them threats to the water environment causing faster surface water run off, additional risks of pollution and increased demands on water supply. The NRA through its role as a consultee in the planning process aims to sustain the water environment, balancing the needs arising from development proposals.

The quantity of water available is crucial to the wellbeing of the river. Environmental demand for water is growing concurrently with agricultural and public water supply demands. For a period in the drought of 1991 there was no freshwater flow downstream of the Dog in a Doublet sluice on the River Nene (at Whittlesey).

The Upper Nene and its tributaries are an important part of Northamptonshire's wildlife resource. Though managed and influenced by man over many centuries, long stretches of semi-natural river with its associated landscape, flora and fauna still exist. The quantity and

quality of water available in the catchment and its dynamic attributes are crucial to the character of the wetland and river habitats. During high flow periods the Nene spreads over the floodplain which maintains valuable wet meadows. The tributaries that feed the Nene also provide a variety of instream and riverside habitats. The catchment contains 46 SSSIs, 28 County Wildlife Trust Nature Reserves and 379 Sites of Nature Conservation Importance.

The catchment's major water resource is the River Nene. The River Nene has a low natural base flow but during periods of dry weather flows are supported by Sewage Treatment Works effluent returns to the river (primarily from Northampton, Wellingborough and Corby).

Groundwater resources in the catchment are limited; the aquifers that are present tend to be relatively thin and discontinuous with little potential for development. For water resource management purposes the Upper Nene catchment must be considered with the Lower Nene catchment, the management plan for which has recently been published. There is a resource deficiency at times in the Lower Nene catchment which results in a number of issues which are directly related to the resource position in the Upper Nene catchment.

A key characteristic of the Upper Nene catchment, in water quantity terms, is the commitment of available resources to meet licensed abstraction for public water supply from surface water sources. All categories of licensed abstraction considerably under-abstract on their

entitlements. Industrial and agricultural abstractions within the catchment take only 4.5% of their licensed entitlement. In respect of actual abstraction in 1992, public water supply accounted for 98% of all abstraction in the catchment. The Anglian Water Services abstraction at Wansford is of particular significance. This abstraction licence at Wansford has a control flow of 136 tcmd at Orton, below which abstraction must cease. River flows in the Nene at Orton can fall below 136 tcmd naturally and independently of AWS abstraction upstream at Wansford.

Some abstraction in the catchment is unreliable due to natural low flows and imposed flow controls. For new demands the commitment to existing uses and users is a constraint on development.

The major water demands in the catchment are as follows:

- a) the major surface water intake works operated by AWS at Wansford where water is abstracted and pumped via a pipeline to fill Rutland Water.
- b) three reservoirs for public water supply are operated by AWS at Pitsford, Ravensthorpe and Hollowell. These reservoirs are filled partly by natural inflow and in the case of Pitsford supplemented by pumping from a river intake at Duston Mill on the River Nene.
- c) abstractions associated with gravel workings at a number of sites in the main Nene valley. The water is used mainly for gravel washing and is largely re-circulated on site, so the net demand on water resources is low.

Water quality is variable; quality in some of the upper reaches of the Nene is good e.g. in the Brampton Branch, in others, notably the headwaters to the Willow Brook, it is poor.

Water quality is influenced by a variety of activities and uses -past and present- within the catchment:-

- A large component of flow is derived from major



Sewage Treatment Works discharges; this is a contributory factor to one of the principal issues in the catchment, that of Eutrophication.

- There are a significant number of landfill sites several of which have the potential to cause pollution of surface and groundwaters; some are located within the Nene floodplain and these need to be closely monitored.
- Historic land uses within the Catchment such as Iron and Steel works have a number of related problems and residual affects upon water quality.
- Water quality in the catchment is influenced by run off from large urban and industrialised areas, which sometimes causes pollution.

One of the features of the Nene valley is the mineral workings along its length. Mineral extraction can affect both water quality and water quantity. It can restrict recharge to an aquifer and divert flow. In addition, purification which occurs as water percolates through the unsaturated zone cannot occur if it has been removed. Subsequent use of mineral extraction sites for landfill can pose a significant threat to water quality.

Northamptonshire County Council in their County Structure Plan have subdivided the Nene Valley into zones for the restoration of sand and gravel workings in those areas of the Valley where agriculture cannot be reintroduced because of the high water table. The object



the Nene, is not uncommon. In urban areas, flood defence relies heavily upon the storage of floodwaters for controlled release of flows within the capacity of the downstream channel. The majority of urban flooding problems associated with main river have been addressed by past improvement schemes although the standard of protection these afford is not necessarily consistent with current policy targets. Continuing development pressures can lead to the need for further works to maintain the status-quo in respect of existing standards of protection.

of this zoning is to establish a co-ordinated approach to the Valley's restoration.

Protecting water quality in the Nene, particularly controlling Eutrophication, is of great importance, as Rutland Water and Pitsford reservoir form major sources of potable water supplies for the area.

In recognition of the particular need to protect groundwater the NRA has produced a National Groundwater Protection Policy which seeks to provide advice to planners, developers and industrialists on how best they may achieve their objectives without placing precious groundwater reserves at risk.

There are two distinct methods of flood defence within the catchment. In rural areas extensive use is made of floodplains - bi-annual inundation from

The Nene itself is a navigation between Northampton and the Wash and gives access to the Grand Union Canal and Middle Level systems. It is increasingly being used for canoeing. There are 34 locks along the Nene valley between Northampton and Wansford, 9 of which are





*Canoeists on river*

used to discharge waters as a method of flood control. The navigation therefore serves in a dual function i.e. both for recreational purposes and land drainage/flood protection purposes.

The Nene Way footpath follows the river from upstream of Northampton down to Wansford and the gravel lakes alongside the river are used for a variety of water based recreational activities including sailing, angling and windsurfing.

The fish population in the main river is typical of lowland rivers in eastern England. In terms of biomass, common bream, roach, dace, chub, and pike are the dominant species. Brown trout populations exist in both the Kislingbury and Brampton branches of the Nene and in the River Ise there is a small population of Grayling.

The River Nene between Northampton and Wansford is an extremely valuable pleasure and match fishing area offering a variety of habitats ranging from rapid shallow fast moving backwaters to broad deep meandering reaches.

## LAND USE PLANNING

The broad objective of catchment management planning is to conserve and enhance the total river environment through effective land and resource management. However while the NRA is well placed to influence some of the factors affecting the water environment, particularly in relation to the river corridor itself, it has a very little control over the mechanisms which determine land use change on a wider basis. This is largely the responsibility of the local planning authorities.

The policies in statutory development plans are extremely important in this regard as they set out the framework for land use change and provide the key reference in determining development applications; the NRA encourages the inclusion of policies which reflect its concerns and responsibilities.

As guidance for local authorities, the NRA has prepared a set of statements relating to the broad headings of water quality, water resources, flood defence, fisheries, conservation in the river corridor and mineral workings and waste disposal. These statements are summarised in the NRA's Guidance Notes for Local Planning Authorities on the methods of protecting the water environment through Development Plans.

This CMP Final Plan sets out issues and actions specific to this catchment which are consistent with the framework of the Guidance Notes for Local Planning Authorities.

## FUTURE REVIEW AND MONITORING

The NRA will be jointly responsible, with other identified organisations and individuals, for implementing this Final Plan. Progress will be monitored and reported annually. These reviews will examine the need to update the CMP in the light of changes within the catchment. The period between major revisions will normally be five years.

The annual review will take the form of a short progress report, to include work achieved compared with that planned, to highlight any changes to the Plan.

## ORDER OF ISSUES CROSS REFERENCED TO THE CONSULTATION DOCUMENT

In order to reflect and encourage the multifunctional approach to the management of the water environment which the NRA is adopting; the issues and actions identified have not been set out in the "functional" order produced in the Consultation Document. To enable readers of this Final Plan to cross reference the issues in the Consultation Document the following table has been produced.

ISSUE No. IN THE CONSULTATION DOCUMENT	NEW ISSUE No.	ISSUE No. IN THE CONSULTATION DOCUMENT	NEW ISSUE No.
1	7	17	2
2	21	18	27
3	8	19	28
4	20	20	12
5	1	21	13
6	26	22	10
7	31	23	17
8	24	24	22
9	23	25	6
10	15	26	16
11	25	27	9
12	14	28	11
13	29	29	REMOVED
14	3	30	19
15	30	31	5
16	18	NEW ISSUE	4



*Geddington*



ISSUES	RESPONSIBILITY	COST	ACTION PERIOD					ACTIONS	BENEFICIARIES/ BENEFITS
			94/5	95/6	96/7	97/8	98/9		
1. The number of pollution incidents occurring in the catchment is increasing	NRA & Polluters	Indeterminate capital costs for developer/industry/farmers.	●	●	●	●	●	The NRA will undertake pollution prevention inspections and persuade the owners/developers/planners of sites to incorporate appropriate pollution prevention measures.	Reduced number of preventable pollution incidents. Flora and Fauna. Anglers. All users.
2. The level of protection to properties against flooding is inadequate in certain locations.	NRA - main river. Local Authority and individuals	£7.0M	●	●	●	●	●	Undertake appropriate engineering works as justified by a Standards of Service review and as identified in the NRA's medium term plan.	Reduced frequency of flooding. Improved level of protection to land and property owners.
3. Current and future direct water demands from the river Nene for spray irrigation and industry cannot be met to target standards of reliability.	NRA/ Abstractors	Indeterminate	●	●	●	●	●	NRA to encourage farmers to develop farm reservoirs for storage of winter water, to improve reliability for summer use. Any licences issued will be subject to strict river flow controls.	Farmers. Improved reliability of water resource.
4. There has been a significant decline in the area of wet/flood grassland in the catchment	NRA/ County Council Countryside Commission	Indeterminate	●	●	●	●	●	NRA will work with others to restore wet/flood grassland and participate in the development of water level management plans.	Water environment. Amenity value.
5. Development, leading to loss of floodplain can increase the severity and frequency of flooding at the site and elsewhere in the catchment and is detrimental to the environment.	NRA/PA / Developers	£100-£200K	■	■	■			NRA to undertake survey to identify area at risk of flooding, to assist the PA's in decisions regarding development proposals in the flood plain.	Water environment. Flood risk to others will not increase.
6. The free passage of fish upstream and downstream is restricted by physical barriers.	NRA	£12-25k per unit.	●	■				Install fish passes in appropriate locations.	Fish. Anglers.
7. The River Nene fails to meet water quality objectives as a consequence of nutrient enrichment ie. eutrophication	NRA/AWS.	To be evaluated	●					The River Nene has been designated sensitive under the Urban Waste Water Treatment Directive. Ferric dosing to remove phosphate is currently being undertaken at Great Billing and Broadholme STW on an experimental basis. The impact of this work will be monitored by the NRA.	Cleaner water. Fishermen. Flora & Fauna. AWS
		20K	●	●	●	●	●		

■ = Feasibility Study/Appraisal Period

● = Work on Site/Action

ISSUES	RESPONSIBILITY	COST	ACTION PERIOD					ACTIONS	BENEFICIARIES/ BENEFITS
			94/5	95/6	96/7	97/8	98/9		
8. The Rushmere Lake/Blue Lagoon in Northampton is adversely affected by algal growth, including blue green algae	NRA/ District Council/ Developer	To be evaluated	■	●	●	●		The NRA is to produce a Blue Green Algae Action Plan for Rushmere Lake and gain support for its findings.	Improved water quality and reduced incidence of blue/green algae
9. Changes in land and river use have an adverse effect on the water environment.	NRA/ Planning Authorities/ MAFF Developers	Part of planning liaison administrative costs.	●	●	●	●	●	Planning Authorities will be encouraged to incorporate all NRA planning guidelines into their Structure and Development plans.	The water environment and its users.
10. A sustainable otter population no longer occurs within the catchment.	NRA/ County Council- Nene Valley Project/ Wildlife Trust English Nature	To be evaluated.	●	●	●	●	●	Target general habitat improvement in priority areas and undertake the construction of specific otter features via collaborative schemes where possible.	Wildlife
11. The restoration of gravel extraction areas needs to be undertaken sensitively.	NRA/ Planning Authorities. Nene Valley Project	Part of planning liaison administrative costs.	●	●	●	●	●	Planning Authorities to discourage piecemeal approach in line with govt. directives.	Conservation and recreation uses.
12. Areas of River Channel and River Corridor have been identified as having low plant species diversity	NRA/ Countryside Commission/ County Council- Nene Valley Project.	Dependant on flood defence capital and maintenance expenditure.	●	●	●	●	●	Undertake habitat enhancement and restoration as part of flood defence maintenance and capital works. NRA to encourage the development of Pocket Parks/ Stewardship schemes	River. Environment. Interested parties.
13. Areas of River Bed in rapid and fast flowing stretches have been identified as having low habitat diversity	NRA	Dependant on flood defence capital and maintenance expenditure.	●	●	●	●	●	Undertake habitat enhancement and restoration as part of flood defence maintenance and capital works.	River. Environment. Interested parties.
14. Pollution of groundwater and/or surface water is being caused by discharges from landfill sites.	WRA/ Site Operators	Depends on actions required	●	●	●	●	●	Waste Regulation Authority to require landfill site operators to improve discharges and leachate management.	Improved river and groundwater quality.
15. The River Ise Site of Special Scientific Interest (SSSI) can be adversely affected by leachate from Rushton Landfill Site.	Operator/ Waste Regulation Authority/NRA	Remedial costs will depend on treatment system selected.	●					WRA to modify site licence conditions to enable greater control of influence which the site has on the River Ise.  Ongoing monitoring and liaison with site owners and WRA required.	Improved river and groundwater quality.

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16. The grayling population in River Ise SSSI is in decline.	NRA/ English Nature	Part of 3 year rolling program of fish surveys.	■				■	Undertake investigation on the status of the Grayling population - conserve and enhance this species.	River environment.
17. The native crayfish is under threat of extinction in this catchment	NRA/ County Council/ District Council/ English Nature	To be evaluated.	■	●	●	●	●	Determine crayfish status of the River Ise. Protect and enhance riverine habitat and water quality in appropriate stretches.	The river environment through improvements in habitat.
18. The effectiveness of flood forecasting and control, for flood risk areas in the catchment, are restricted by a lack of monitoring information	NRA	£600k	●			■	■	A new regional telemetry system is currently being installed. The NRA is to assess the need for additional gauging stations starting 1996	Improved forecasting and more accurate information.
19. Development in the catchment leading to increased run-off poses a significant flooding risk.	NRA/ Planning Authorities	Dependent upon individual schemes	●	●	●	●	●	NRA to ensure all developments incorporate appropriate mitigating works ,and to encourage a strategic approach to development.	Flood risk will not increase
20. The following watercourses fail to comply with proposed River (formerly Fishery) Ecosystem objectives R Nene (Ecton to Wallaston lock). Willow Brook (Northern Str). Brampton Branch (Creaton Brook to Spratton Brook). R Ise. Raunds Hog Dyke. Grand Union Canal.	NRA/ Discharger	Dependant on cost/benefit analysis	●	●	●	●	●	The NRA will require improvement of effluent quality for those discharges causing failure. The NRA will work with the dischargers to undertake cost benefit analysis of the necessary improvement works.	Cleaner water. Fishermen. Flora & Fauna.
21. The following watercourses are NWC Class 3 or 4 (poor quality) Willow Brook (Northern stream). Willow Brook (Southern stream). R. Nene (Ditchford to Denford).	NRA/ AWS	To be evaluated						The NRA will require improvements of effluent quality for those discharges causing failure. The NRA and AWS will jointly undertake cost benefit analysis of the necessary improvement works to determine their investment priority.	Cleaner water. Fishermen. Flora & Fauna.
22. Fish biomass levels only achieve class C/D between Earls Barton and Thrapston.	NRA/ Landowners/ County Council- Nene Valley Project	£6K Depends on actions agreed.	■	●	●	●	●	Investigate causes of low biomass levels in the Nene between Earls Barton and Thrapston and seek opportunities to connect sand and gravel pits to the river system.	Fish biomass should rise. Anglers. Extra moorings for boaters. Additional flood storage.

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ISSUES	RESPONSIBILITY	COST	ACTION PERIOD 94/5 95/6 96/7 97/8 98/9	ACTIONS	BENEFICIARIES/ BENEFITS
23. Rounds Hog Dyke fails to meet water quality F2 Fisheries (RQO) and Spray Irrigation objectives	NRA initially	Costs dependant on agreed solutions	● ● ● ● ●	NRA to carry out further investigation to determine reason(s) for failure, and seek improvement by those responsible	Improved river water quality. Flora and Fauna. Farmers. Anglers.
24. Water quality in Willow Brook fails EC dangerous substances directive for zinc	Discharger	Capital Cost £170k  Revenue Cost £30-40k p.a.	●  ● ● ● ● ●	The discharger has been required to reduce zinc concentration in effluent discharged. Improvements were completed during 1994. Monitoring will continue to determine whether or not the EC Dangerous Substance Directive is complied with.	Compliance with EC Directive. Improved water quality. Flora and Fauna.
25 Corby - contaminated groundwater discharge from an unknown source causes pollution.	NRA/ Landowners	Indeterminate	● ● ● ● ●	The NRA will work with landowners to identify pollution sources and require their improvement.	Improved river and groundwater quality.
26 Surface water run off from proposed and existing developments causes pollution.	NRA/ Developers	Indeterminate capital costs for developer/industry.	● ● ● ● ●	The NRA will undertake pollution prevention inspections and persuade the owners/developers/planners of sites to incorporate appropriate pollution prevention measures.	Reduced number of preventable pollution incidents. Flora and Fauna. Anglers. All users.
27. Effective management of the navigation is limited due to insufficient information on;  A. The present use of the navigation and its carrying capacity, both in terms of boat traffic and environmental impact.  B. The Customer	NRA   NRA	£5k  £5k  £2k  £5k	● ●  ■ ■  ■ ■  ■ ■	Install automatic systems to monitor boat movements. Undertake a survey to establish the environmental impact of boating.  An initial survey of registered boat owners to be undertaken. Further survey work to be undertaken of the needs of other NRA "customers" associated with the navigation.	NRA and its management of the navigation by gaining additional information.  Indirectly other users of the system.
28. Amenity services on the Nene are low, in comparison with other navigations, discouraging its use as a recreational facility.					

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			94/5	95/6	96/7	97/8	98/9		
<p>A. Insufficient facilities exist on the navigation in terms of sanitary facilities, rubbish disposal points and mooring facilities</p> <p>B. The operation of Nene Locks is physically demanding and slow.</p> <p>C. Certain features of the Nene navigation are hazardous to its users</p> <p>D. The River Nene is underdeveloped in terms of facilities for canoeing and rowing.</p>	<p>NRA/ County Council- Nene Valley Project./ Boat clubs. Other Users.</p> <p>NRA</p> <p>NRA</p> <p>NRA/ County Council- Nene Valley Project./ Canoe and Rowing clubs.</p>	<p>£20-30k per sanitary unit</p> <p>£30k</p> <p>To be evaluated</p>	<p>■ ● ● ● ●</p> <p>●</p> <p>● ● ● ● ●</p> <p>● ● ● ● ●</p>	<p>Look to develop collaborative projects with other interested parties subsequent to the survey (Issue 27).</p> <p>The NRA has committed funds to electrify two locks during 94/5. Further expenditure will depend on the outcome of the user surveys (Issue 27).</p> <p>The NRA is to undertake audit of certain safety features to identify and effect any necessary works. Advise users of dangers following surveys.</p> <p>The NRA will encourage proposals to develop facilities through collaborative projects.</p>	<p>Navigation users. Water quality.</p> <p>Opens more water to less able/ handicapped boaters.</p> <p>All users</p> <p>Recreational users</p>				
29. The degree of commitment of water resources to meet licensed demands in the Upper Nene Catchment (principally PWS) impacts on water resource deficiencies in the Lower Nene Catchment.	NRA	£40k	■ ■ ■ ● ●	A project group has been set up (in the context of the Lower Nene Final Plan) to review current policy and determine medium to long term water allocation policy with regard to water resource deficiencies.	Balanced policy for water allocation. All users benefit.				
30. The NRA does not have effective regulatory control over water abstractions from the River Nene. AWS's abstraction licence at Wansford has no effective daily or annual abstraction limits.	NRA/ Abstractors	Depends on water allocation policy.	● ● ● ■ ■ ■ ● ●	NRA is to vary the terms of AWS's licence for a 3 year period, and move the flow control point from Orton to Wansford. Longer term action will depend on the outcome of the "water allocation policy" referred to in Issue 29.	Improved regulatory control of abstraction by NRA. Improved management of their abstraction by AWS.				
31. Pollution is caused by inadequate sewerage facilities/village sewers.	AWS/ Individual householders/ District Councils/ Developers	Dependent upon solution chosen	● ● ● ● ●	AWS to improve sewerage facilities in priority order. Other sites to be reviewed by NRA on a case by case basis to determine responsibility for remedial action. The NRA will liaise as appropriate with District Councils and individual householders.	Improved water quality. Flora and Fauna.				

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## GLOSSARY OF TERMS AND ABBREVIATIONS

<b>AQUIFER</b>	water bearing stratum below ground level.
<b>BIOMASS</b>	total weight of living organisms (fish) in a given area.
<b>EUTROPHIC</b>	water which is rich in nutrients.
<b>EUTROPHICATION</b>	process by which water becomes saturated with nutrients so that algae growth is rapid and dilapidates the oxygen supply.
<b>HYDROLOGICAL TELEMETRY</b>	surface and groundwaters. A means of automatically collecting data from remote sites enabling current data to be interrogated remotely.
<b>MITIGATING</b>	to make less severe.
<b>RIPARIAN</b>	owner of the river bank.
<b>RUN OFF</b>	proportion of rainfall that runs into rivers as surface water.
<b>SURFACE WATERS</b>	water collecting on and running off the surface of the ground.

## ABBREVIATIONS

<b>NRA</b>	National Rivers Authority
<b>SSSI</b>	Site of Special Scientific Interest
<b>MAFF</b>	Ministry of Agriculture Fisheries and Food
<b>NFU</b>	National Farmers Union
<b>SNCI</b>	Site of Nature Conservation Importance
<b>AWS</b>	Anglian Water Services
<b>RSPB</b>	Royal Society for the Protection of Birds
<b>UWWT</b>	Urban Waste Water Treatment
<b>WRA</b>	Waste Regulation Authority
<b>EN</b>	English Nature
<b>PA</b>	Planning Authority
<b>PWS</b>	Public Water Supply



*River Nene, Northampton*

# THE NRA ANGLIAN REGION CATCHMENT MANAGEMENT BOUNDARIES



# The National Rivers Authority

## Guardians of the Water Environment

The National Rivers Authority is responsible for a wide range of regulatory and statutory duties connected with the water environment.

Created in 1989 under the Water Act it comprises a national policy body coordinating the activities of 8 regional groups.

The main functions of the NRA are:

- |   |  |
|---|--|
| Water resources                             | — The planning of resources to meet the water needs of the country; licensing companies, organisations and individuals to abstract water; and monitoring the licences.                   |
| Environmental quality and Pollution Control | — maintaining and improving water quality in rivers, estuaries and coastal seas; granting consents for discharges to the water environment; monitoring water quality; pollution control. |
| Flood defence                               | — the general supervision of flood defences; the carrying out of works on main rivers; sea defences.   |
| Fisheries                                   | — the maintenance, improvement and development of fisheries in inland waters including licensing, re-stocking and enforcement functions.   |
| Conservation                                | — furthering the conservation of the water environment and protecting its amenity.   |
| Navigation and Recreation                   | — navigation responsibilities in three regions — Anglian, Southern and Thames and the provision and maintenance of recreational facilities on rivers and waters under its control.       |

