

THE GIPPING/STOUR CATCHMENT MANAGEMENT PLAN



FINAL PLAN - DECEMBER 1993



NRA

*National Rivers Authority
Anglian Region*

INTRODUCTION

Established in 1989 the National Rivers Authority has as its role the "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 our future management.

Catchment Management Planning is a procedure designed to create a consistent framework within which the diverse responsibilities of the NRA can be applied within a catchment in a co-ordinated manner.

Catchment Management involves the NRA using its powers and working with others to ensure that the rivers, lakes, coastal and underground waters of particular areas are protected and where possible improved for the sake of generations to come, and that water is made available for all reasonable needs.

River catchments are subject to increasing use by a variety of activities. Many of these interact and some conflicts arise. The conflicting requirements and interests of users and beneficiaries must be balanced.

We use our resources to:

- Maintain existing assets and invest in new assets to provide flood protection, manage water resources and provide other NRA services;
- Control pollution by working with dischargers to achieve improvements and by responding to emergencies;
- Determine, police, enforce and review the conditions in water abstraction licences, discharge consents and land drainage consents to balance differing, and sometimes conflicting, needs whilst protecting the water environment;
- Develop fisheries, and promote recreation, navigation and conservation;
- Influence planning authorities to control development through Town and Country planning liaison.

OVERVIEW

The Authority published the Gipping/Stour Catchment Final Plan in January 1993 as a consultation document seeking comments from all those interested in the water environment. As a result of the consultation process we are now able to publish the Gipping/Stour Catchment Final Plan for the five year period commencing April 1994.

Comments were received from the following

organisations on the Consultation Draft:-
Anglian Water Services, Babergh District Council, Braintree District Council, Carlsberg Tetley Maltsters, Countryside Commission, Eastern Council for Sport & Recreation, English Nature, Friends of the Earth, I.C.I. Imagedata, Ingatestone & Fryerning Angling Club, Inland Waterways Association, Mid Suffolk District Council, Munton & Fison PLC, River Stour Trust, Royal Society for the Protection of Birds, Soil Survey and Land Research Centre, Suffolk Coast and Heaths Project, Suffolk County Council, Suffolk Wildlife Trust, Tendring District Council.

The Final Plan includes and reflects many of the comments received from the listed organisations.

CATCHMENT FACTS

CATCHMENT DETAILS

Area	1485 square kilometres	
Population	402,000 (est. 1990) 423,000 (est. 2001)	
Topography	Minimum level	+ 2 metres (ODN)*
	Maximum level	+ 126 metres (ODN)*
	River gradients	River Gipping 1:344 average River Stour 1:591 average
Geology	River Gipping	Boulder clay, sand and gravel with chalk outcrops overlaying chalk.
	River Stour	Boulder clay, sand and gravel overlaying chalk.

* ODN = Ordnance Datum Newlyn.

ADMINISTRATIVE DETAILS

County Councils:	Suffolk	(78%)
	Essex	(20%)
	Cambridgeshire	(2%)
District/ Borough Councils	Babergh Colchester Ipswich South Cambridgeshire Suffolk Coastal Uttlesford	Braintree East Cambridgeshire Mid Suffolk St. Edmundsbury Tendring

MAIN TOWNS AND POPULATIONS

Ipswich	116,956	Felixstowe	23,180
Sudbury	21,000	Haverhill	20,000
Harwich	16,736	Stowmarket	13,410
Hadleigh	6,600		

ENVIRONMENT AGENCY



029794

WATER QUALITY

Length of river in National Water Council Class - 1991
Class 1A (very good) 0 km Class 1B (good) 104.5 km
Class 2 (fair) 107.4 km Class 3 (poor) 15.9 km
Class 4 (bad) 0 km

N.B. Minor Main River tributaries are not included in the above

Length of estuary: Coastal and Estuarine Working Party Classification 1991.

Class A (good) 36.5 km Class B (fair) 10.0 km
Class C (poor) 2.0 km Class D (bad) 2.0 km

WATER RESOURCES

Availability:

Gipping catchment Chalk aquifer - none
 Gravel - none
 Surface water - winter only in minor quantities

Stour catchment Chalk aquifer- minor quantities
 Sands/gravels - minor quantities where abstraction will not affect low summer flows
 Surface water - winter minor quantities: summer when supported by the Ely Ouse to Essex Water Transfer Scheme.

FLOOD PROTECTION

	River Gipping and associated tributaries	River Stour and associated tributaries
Fluvial Main River	94.2 km	300.5 km
Tidal Main River	17.3 km	41.0 km
Embanked Main River	16.7 km	18.0 km
Length of risk defences	2.6 km	55.0 km
Area at risk of tidal flooding	391 ha	1748 ha
Area at risk of fluvial flooding	828 ha	5000 ha

FISHERIES (monitored by NRA)

Biomass Class	A	B	C	D	Total
Length of salmonid fishery	4.3	26.4	0	0	30.7 km
Length of cyprinid fishery	97.7	31.3	6.3	4.8	140.1 km
TOTAL	102.0	57.7	6.3	4.8	170.8 km

CONSERVATION

Number of Sites of Special Scientific Interest 39
Number of water dependent S.S.S.I.s 14

NAVIGATION

Parts of the River Stour form the only current Navigation.

Length of Recreational Waterway/Navigation: 48 km.

Navigation Authority: National Rivers Authority.

THE CATCHMENT

The River Gipping and the River Stour have a combined catchment of 1485 square kilometres: this straddles the Suffolk/Essex border with a small portion being in Cambridgeshire, but the greatest part is in Suffolk. Both rivers have large tidal estuaries: the saline Gipping is called the Orwell. To the south-east of these river systems is Hamford Water. This is a small but significant area of rural land interlaced with tidal channels and open water.

LAND USE

The catchment is predominantly agricultural, but the large ports of Felixstowe, Ipswich and Harwich, together with the lesser port of Manningtree have significant industry and port-related activities. Other smaller towns have considerable light industry.

Approximately 402,000 people currently live in the catchment area.

RIVER GIPPING

The catchment is predominantly agricultural and the river is used for the popular pastimes of fishing and boating. The Orwell Bridge over the tidal estuary is the largest span in the catchment, the crossing being 1300 metres long. The middle reach of this river contains the catchment's largest concentration of mineral extraction sites (for gravel winning). Much of the industry is related to agriculture but there are significant chemical and cement works.

RIVER STOUR

The Stour Estuary is a designated RAMSAR and Special Protection Area; upstream lies the lower Stour valley, much of which is an S.S.S.I. and is famous for its association with the painter John Constable. Tourism brings many visitors to the area to explore "Constable Country." Boating, fishing and other leisure activities take place, and most of the fluvial Stour is utilised by the Ely Ouse to Essex water transfer scheme. The mouth of the estuary is significantly influenced by shipping from the adjacent international ports.

HAMFORD WATER

This area of creeks, saltings, marsh and open water is an S.S.S.I. and part of this is a National Nature Reserve which is renowned for its birdlife. Hamford Water is also very popular for sailing and other water sports.

DEVELOPMENT PROPOSALS

The catchment's growth is identified within its various Structure Plans but is generally limited to the towns and main villages.

CURRENT SITUATION AND PLANNED ACTIONS

The actions to be taken in the Gipping/Stour catchment, as a result of the consultation exercise are outlined in the following tables. Since there is limited funding available to meet regional requirements, funds are allocated on a priority basis. Therefore, the timing of planned actions will depend upon their priority compared with actions proposed elsewhere in the Anglian Region.

a) WATER QUALITY

The majority of rivers and estuaries in the catchment are of good or fair quality though some were adversely affected during the recent drought. Stretches of poorer quality river water are generally associated with effluent discharges.

There are 106 sewage treatment outfalls to rivers and tidal waters within the catchment. Many of the

sewage treatment works are being upgraded and effluent quality continues to improve. Further requirements for improvement to Anglian Water Services' Ltd works will be considered in terms of their priority on a Regional basis.

There are 21 significant industrial discharges to the river and tidal waters of the catchment: tight consents have been issued to protect the receiving waters: discharge quality is closely monitored.

The protection of the aquifers from accidental spillage and diffuse pollution from intensive agriculture is high priority as the clean up of contaminated groundwater is difficult, expensive and sometimes impossible. In December 1992 the NRA published its "Policy and Practice for the Protection of Groundwater." Both industry and agriculture are regularly monitored to ensure adequate anti-pollution facilities are installed and regularly maintained.

Issue	Action	94/95	95/96	96/97	97/98	98/99	Future	Responsibility	Cost £K
River Gipping Headwaters to Sproughton Failure to achieve target class	Review existing discharge consents This will lead to the imposition of "In-River Needs" limits	■	■	■	■	■	■	NRA AWS & Industry	Minimal Unknown
River Gipping Sproughton to tidal limit Failure to achieve target class and fishery status	Update the Ipswich Area sewerage system	Dependant upon prioritisation by AWS of its projects throughout the Region						AWS	Unknown
River Orwell Ipswich to Chelmondiston Failure to achieve EC limits for copper and zinc	Research to assess sources and the extent of the effect	■						NRA	10
River Stour and Stour Brook Downstream of Haverhill STW. Failure to meet class targets and use objectives coupled with odour problems	Improve Haverhill STW to meet odour and "In-River Needs" limits	■	■	■	■	■	■	AWS	Unknown
Chad Brook - Headwaters to Acton Failure to achieve target class	Survey to identify polluting sources	■						NRA	4
	Review consent limits of discharges	■	■	■	■	■	■	NRA	0
	Research to assess influence of variable river flows						■	NRA	10
River Box - Headwater to Edwardstone Failure to meet target class and low biological score	Survey to identify polluting sources	■						NRA	4
	Review consent limits on discharge	■	■	■	■	■	■	NRA	0
	Research to assess influence of variable river flows						■	NRA	10

■ = Action to be carried out AWS = Anglian Water Services STW = Sewage Treatment Works

Note: "In-River Needs" means the water level, flow and quality required to maintain the existing river ecological requirement.

Issue	Action	94/95	95/96	96/97	97/98	98/99	Future	Responsibility	Cost £K
River Box - Boxford to River Stour Failure to meet target class	Monitoring to assess the effect of recent improvements to Boxford STW	■						NRA	0
River Stour Kirtling Brook to Tidal Limit Failure to meet predicted biological score with loss of flora due to eutrophication Concern over agricultural pollution from diffuse sources	Operational investigation (Research and Development) to find the cause				■			NRA	10
	Pollution prevention and enforcement	■	■	■	■	■	■	NRA	Covered by NRA Reserve Budget
	Await completion of NRA's R & D project into buffer zones. If acceptable, encourage this use.	■	■	■				NRA	Minimal
Adverse effects from existing Harwich, Dovercourt and Felixstowe sewage outfalls	Improvement/relocation of outfalls	(Timetable dependant upon prioritisation by AWS of its projects throughout the Region)						AWS	Known only to AWS
River Orwell. Non compliance with class limits upstream of Woolverston	Improved discharges of sewage and industrial effluents			■				AWS and Industry	Known only to AWS and Industry
Concern over the effect of trade effluent discharges on the local salt marsh at Brantham	Review of consents limits in liaison with conservation bodies	■						NRA	10
Ramsey River Upper Reaches Failure of class limits	Monitoring to assess the effect of recent improvements to Wix STW	■						NRA	0
Excessive use of emergency boreholes at Langham to overcome water quality problems	Research and investigation into appropriate effluent limits	Timetable unpredictable						NRA	Not known
	Nitrate removal from raw water supply	Timetable is dependant upon the water undertaker						E.W. Co.	Not known

■ = Action to be carried out AWS = Anglian Water Services STW = Sewage Treatment Works R & D = Research and Development E.W. Co. = Essex Water Company

b) FISHERIES

The rivers support a predominantly cyprinid fishery but salmonid fisheries exist in some upper reaches. Throughout the catchment there are a large number of

lakes and ponds which are used for both coarse and trout angling. Regular monitoring is undertaken, together with re-stocking of depleted fisheries.

Issue	Action	94/95	95/96	96/97	97/98	98/99	Future	Responsibility	Cost £K
River Gipping Belstead Brook Failure of Fishery Use	Review existing discharge consents	■						NRA	Minimal
	Undertake survey of fish population		■					NRA	5
	Set "In River Needs" limits on Chantry STW appropriate to the fish population		■					NRA	Minimal
	Improve standard of effluent from Chantry STW, (if necessary to meet "In River Needs" study)	Timetable (if required) is dependant upon prioritization by AWS of its projects throughout the region						AWS	Unknown

■ = Action to be carried out AWS = Anglian Water Services STW = Sewage Treatment Works

e) FLOOD PROTECTION

Major fluvial flooding in the catchment in 1947 and 1968 resulted in a series of improvement schemes. Following the major tidal flooding caused by the 1953 event, significant tidal defence improvement works were undertaken along the low lying frontages. The majority of the land adjoining the principal rivers, and along the coast is now protected to the Region's

target levels of service, but some areas remain vulnerable to flooding. Regular maintenance, sympathetic to the environment, is required to preserve the standard of the flood defences. Where the NRA's flood defences are below their target standard, or are reaching the end of their design life, the Authority has an on-going programme of capital construction.

Issue	Action	94/95	95/96	96/97	97/98	98/99	Future	Responsibility	Cost £K
Some flood defences require upgrading to comply with NRA target standards. (The listed projects are from the NRA's Medium Term Flood Defence Plans)	Parkeston Flood Defences	■					■	NRA	550
	Dovercourt and Bramble Island Flood Defences	■						NRA	550
	Felixstowe Ferry Flood Defences					■	■	NRA	650
	Languard Point coast protection groynes	■	■					NRA	100
Weirs and sluices Problem of funding, responsibility and co-ordination of operation and repairs to private structures	Carry out an investigation of the environmental and other effects of non-maintenance of structures to identify risks, needs and responsibilities	■	■					NRA	10
Flood protection. Review of tidal flood defence strategy related to future land use and environmental requirements	Establish a working group to prepare a strategy for the Essex coast and the Suffolk coast	■	■	■	■	■	■	NRA	40
Concern over regulation of river levels and flows	Await the outcome of National and Regional Water Resource Strategies and formulate a programme of automating river control structures; and improve public awareness of river regulation scheme by appropriate public information	■	■	■	■	■	■	NRA	25

■ = Action to be carried out

f) WATER RESOURCES

Groundwater in the catchment is abstracted for public water supply, industrial and agricultural use. The volume licenced is controlled to balance the conflicting desires of commercial users with the needs

of the environment; the latter includes wetland sites, preserving the ecological regime of rivers, and maintaining flow for effluent dilution. The quantity available for abstraction has now reached full utilisation.

Issue	Action	94/95	95/96	96/97	97/98	98/99	Future	Responsibility	Cost £K
Actual minimum flows are perceived to be inadequate to meet river needs	Await outcome of the "In-River Needs" study then assess options		■	■				NRA	Unknown at present
Artificial river support by effluent discharges is unreliable	Carry out a detailed assessment of the likely impact on rivers of cessation or reduction in current effluent discharges		■	■				NRA	15
Lack of detailed understanding of the working of the Stour chalk aquifer	Investigation/modelling of aquifer in the Stour catchment			■				NRA	50

■ = Action to be carried out

Issue	Action	94/95	95/96	96/97	97/98	98/99	Future	Responsibility	Cost £K
Available surface water resources are inadequate to meet present and future seasonal demands	Await outcome of the Strategic Options Study; and		■					NRA	0
	Encourage winter storage	■	■	■	■	■	■	NRA	5
Available groundwater resources are inadequate to meet present and future demands	Await the outcome of the Strategic Options Study		■					NRA	0

■ = Action to be carried out

g) NAVIGATION

The River Stour forms a Navigation in its middle and lower reaches but use of this facility is restricted, primarily by the lack of usable locks, so pleasure use is generally limited to portable boats and canoes. The NRA is the Navigation Authority for the River Stour Navigation. The middle and lower reaches of the

River Gipping are no longer a Navigation: the right of navigation stopped many years ago when the navigation company ceased trading. In many cases, the old lock structures along the River Gipping remain (though their gates are no longer in place).

Issue	Action	94/95	95/96	96/97	97/98	98/99	Future	Responsibility	Cost £K
Impact of proposed scheme to reinstate the River Gipping navigation	Carry out a feasibility study to identify potential impacts					■	■	NRA	20
Impact of renovating the Stour navigation structures	Carry out a feasibility study on potential impacts		■	■				NRA	15
Lack of public access for launching small craft on estuaries	Promote the provision of suitable facilities when opportunities arise, as part of the routine work with local authorities		■	■	■	■	■	NRA	10
Lack of public access to estuaries and coastal zone	Promote the provision of suitable facilities when opportunities arise, as part of routine liaison with local authorities		■	■	■	■	■	NRA	15

■ = Action to be carried out

h) CONSERVATION

There are 39 Sites of Special Scientific Interest (SSSIs) within the catchment of which 14 depend on the continuation of a suitable water regime. Other wetland areas are supported by spring flows and the

diversity of riverine habitat in the catchment are of particular importance for nature conservation. Although these do not have SSSI status, they are considered to be of local natural history interest.

Issue	Action	94/95	95/96	96/97	97/98	98/99	Future	Responsibility	Cost £K
Need to identify catchment zones for wetlands of environmental importance	Await the outcome of existing research then formulate action to address areas of concern		■	■	■	■	■	NRA	50
Loss of salt marsh	Co-ordinate existing research findings to identify shortfalls in current activities for the promotion of salt marsh regeneration and retention	■	■	■	■	■	■	NRA	30
Concern over existing and future decline in water level at Cornard Mere	On-going monitoring prior to the establishment of a management plan	■	■	■	■	■	■	English Nature AWS/Suffolk Wildlife Trust/NRA	10

■ = Action to be carried out

i) DEVELOPMENT CONTROL

Liaison between the NRA and the County and Local Planning Authorities is essential to safeguard the future of the water environment. The NRA also

exercises its own powers to control development adjacent to significant watercourses and its flood defences.

Issue	Action	94/95	95/96	96/97	97/98	98/99	Future	Responsibility	Cost £K
Need to investigate current standards of flood defence protection in the catchment	Study to be carried out by consultants to determine current levels of service (Gipping/Stour catchment will form part of overall study)	■						NRA	45
Development increases risks to the water environment but NRA has only limited powers to impose conditions on development	Endeavour to persuade planning authorities to adopt NRA guidance statements in their structure and local plans	■	■	■	■	■	■	NRA/Planning Authorities	24
	Raise Awareness of planning authorities to DoE Circular 30/92 and its importance in formulating structure and local plans and in the determination of planning applications	■	■	■	■	■	■		

■ = Action to be carried out

FUTURE REVIEW AND MONITORING PROGRAMME

The NRA will be jointly responsible, with other identified organisations and individuals, for implementing this Final Plan. Annual monitoring reports to record progress in fulfilling the Final Plan will be produced by the NRA and distributed to interested

parties. These reports will comment on the necessity to formally review and update this Catchment Management Plan. The period before an update is necessary will depend upon the particular needs of the Catchment, but will not be longer than 5 years.

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.