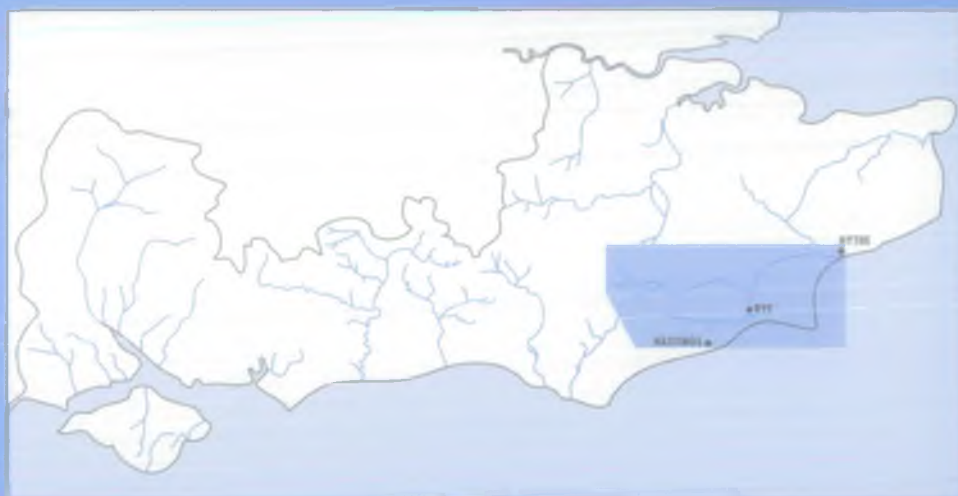


EAST SUSSEX ROTHER CATCHMENT MANAGEMENT PLAN ACTION PLAN



NRA

*National Rivers Authority
Southern Region*

MISSION STATEMENT

The NRA's mission is :

"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 from and use rivers, groundwaters, estuaries, and coastal waters. We will be businesslike, efficient and caring towards our employees".

Our Aims are to :

- * Achieve a continuing overall improvement in the quality of rivers, estuaries and coastal waters, through the control of pollution.
- * Manage water resources to achieve the right balance between the needs of the environment and those of the abstractors.
- * Provide effective defence for people and property against flooding from rivers and the sea.
- * Provide adequate arrangements for flood forecasting and warning.
- * Maintain, improve and develop fisheries.
- * Develop the amenity and recreation potential of inland and coastal waters and associated lands.
- * Conserve and enhance wildlife, landscape and archaeological features associated with inland and coastal waters of England and Wales.
- * Improve and maintain inland waters and their facilities for use by the public where the NRA is the navigation authority.
- * Ensure that dischargers pay the costs of the consequences of their discharges, and, as far as possible, to recover the costs of environment improvements from those who benefit.
- * Improve public understanding of the water environment and the NRA's work.
- * Improve efficiency in the exercise of the NRA's functions and to provide challenge and opportunity for employees and show concern for their welfare.

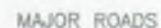
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Published August 1995



River Rother Catchment Management Plan

A. THE NRA VISION FOR THE EAST SUSSEX ROTHER CATCHMENT

By the standards of south-east England the catchment is sparsely populated with an average of only 175 persons per sq. kilometre (454 per sq. mile). The main centres of population are the small towns of Battle, Hythe, Tenterden and Rye, but Hastings and Folkestone, just beyond the boundary of the catchment, make demands on its water resources.

With the catchment being predominantly rural and much of it prone to flooding before river drainage was improved in the 1970s, the area has great landscape and conservation interest. The uplands in the western half of the catchment are recognised as an Area of Outstanding Natural Beauty and there are extensive Sites of Special Scientific Interest (SSSI) on Romney Marsh and around Rye. Although not formally designated as such the Brede, Tillingham and Pannel Sewer valleys also merit consideration as designated conservation areas on account of their high wildlife value. The NRA is pledged to protect and sustain the natural environment and will support sensitive measures for its management.

The Authority will enforce its groundwater protection policy to prevent aquifer pollution and will be vigilant in the maintenance of river water quality. Close liaison will be maintained with Local Authorities to ensure that unsuitable development does not increase flood risks or cause unacceptable damage to the water environment. Flood defence and land drainage works will be carried out in accordance with MAFF conservation guidelines.

The NRA will continue its careful stewardship of water resources. The catchment's groundwater reserves are sparse and the availability of surface water is limited at times of low rainfall; additional storage would release new resources, but could be developed only after consideration of the environmental impact.

The Authority will work with riparian owners and angling organisations to maintain, improve and develop fisheries. Coarse fisheries will be managed scientifically and fish movements will be carefully controlled to prevent the introduction of parasites, diseases or exotic species. The use of native brown trout will be encouraged for stocking river trout fisheries. Where necessary, fish passes will be built to maximise access to the river system by sea trout.

NRA Kent Area Manager

B. THE CATCHMENT PLANNING PROCESS

Plan Production

The Water Act 1989 established the National Rivers Authority (NRA) as the "Guardian of the Water Environment", a non-departmental government organisation with responsibility for regulating and managing water resources, water quality in coastal and inland waters, flood defence, salmon and freshwater fisheries, water recreation and, in some areas, navigation. An additional duty laid on the NRA was to further conservation of the natural environment, seeking opportunities for enhancement wherever possible.

NRA Regions are defined by river basins catchments - singly, as in the Thames Region, or as geographical groups of rivers. With the exception of sea defence and coastal water pollution control all the NRA's functions are managed within this catchment framework, so the need to resolve conflicts arising from differing functional objectives makes it essential to integrate the NRA's planning in the same way.

Catchment Management Plans relate firstly to the Authority's own operations, including its role as a statutory regulator controlling the actions of others. However, the Plans also offer an opportunity for input from the public to the development of NRA policy and for the Authority itself to draw attention to its aspirations for improving the water environment.

The Plans concentrate on topics where the Authority has a direct interest and are focused mainly on the river corridor, although some functions such as water resource management and pollution control inevitably extend over the whole catchment area. Whilst they lack the status of statutory planning documents, it is hoped that Catchment Plans will make a positive input to the Town and Country planning process.

Public Consultation

The East Sussex Rother Catchment Consultation Report, which was launched in May 1994, was circulated widely to those with an identified interest in the catchment and was the subject of a public meeting in Rye on 23rd June. The Authority is grateful to the twenty organisations and individuals who responded (see Table 1, page 19), their views have contributed to this Action Plan.

Plan Review

The NRA will be responsible for implementing this Catchment Management Plan in partnership with the organisations identified in the Action Programme. Progress will be monitored and reviewed annually to ensure that the Plan meets current needs and there will normally be major revisions at five yearly intervals.

C. OVERVIEW OF THE EAST SUSSEX ROTHER CATCHMENT

The River Rother rises near Rotherfield in East Sussex, flowing eastwards through the High Weald and onto Romney Marsh. About half way along its course the character of the river changes from an upland stream to an embanked channel running through marshland, much of which is below high tide level. Scots Float Sluice at Playden is the tidal limit and includes a lock for the passage of small craft. The lower reaches of the freshwater river are embanked to provide storage for freshwater flood flows when Scots Float sluice is tidelocked. Downstream of the sluice, the rivers Tillingham and Brede join the Rother estuary at Rye to form a drying tidal harbour extending some four kilometres to the sea.

The area is predominantly rural with mixed, arable and sheep farming, and high-value crops are grown on the rich lands of Romney Marsh. Light industry is found mainly alongside the Rother Estuary between Rye and Rye Harbour. Rivers and reservoirs are the main sources of water for public supply, although the aquifers of the Ashdown Sands provide local supplies and the gravels of Dungeness are an important resource for Folkestone.

The Rivers Rother, Brede and Tillingham support runs of sea trout and there are populations of wild brown trout in the tributaries, whilst the larger rivers and marsh drains are noted for their productive coarse fisheries. The catchment has considerable conservation interest, especially in the marshes and along the coast. The Rye Bay and High Weald projects led by East Sussex County Council and encouraged by the NRA, raise the profile of countryside management in the catchment.

There is a history of frequent flooding in the lower Rother valley, a problem which was alleviated in the 1970s by RADIS (Rother Area Drainage Improvement Scheme). Management of arterial drainage channels and of defences against flooding from the sea is a function of the NRA; Internal Drainage Boards look after the smaller marshland watercourses, financing their activities by levying charges on local landowners. The Royal Military Canal, which borders the landward side of Romney Marsh, is a key component of the drainage system. The Canal is used in winter as a high-level drain discharging to the sea by gravity when the tide permits; in summer it is used as a reservoir of fresh water to maintain ditch levels in the marshes for wet fencing, stock watering and crop irrigation. In dry summers there may be insufficient water for this purpose and problems with the distribution system prevent some areas receiving their share, although the NRA has improved the ditch system in recent years.

The Port of Rye is owned and managed by the NRA, mainly on account of the significance of the Rother estuary for flood defence. The Harbour provides moorings for fishing vessels and pleasure craft, and caters for some 200 medium sized cargo vessels which use the two private wharves each year. Policies for the management of the Port were published as the Harbour of Rye Management Plan (1994), simultaneously with the Catchment Management Consultation Report. Enquiries about boating and canoeing on inland waters in the Rother catchment should be addressed to the NRA Kent Area Office.

D. INTERACTION WITH DEVELOPMENT PLANS

As a statutory consultee for Local Authority development plans and for individual development proposals the NRA has the following objectives:-

- * To protect surface, groundwater and coastal waters from pollution arising from development.
- * To ensure that development does not result in over-exploitation of water resources.
- * To ensure that the risk of fluvial or tidal flooding is not significantly increased by development and that proposed developments are not themselves at risk from flooding.
- * To minimise the adverse effects of development on the water environment, particularly with regard to fisheries, wildlife conservation, landscape and historic sites, and to maximise the potential environmental benefits which development may offer.

Details of NRA planning policies are given in "Guidance Notes for Local Planning Authorities on the Methods of Protecting the Water Environment through Development Plans".

The Rye Bay Countryside Project Management Plan (East Sussex County Council) and Shoreline Management Plans (East Sussex and Kent County Councils) are relevant to this Catchment.

River Rother Catchment Management Plan

E. CATCHMENT STATISTICS

E.1 GENERAL INFORMATION

Catchment area 97,083 Ha (970.83 km²)

Topography

Maximum Level 197 m AOD
Minimum Level 0 m AOD

Geology

Hastings Beds and Weald Clay, with Recent deposits in the marsh areas.
The south eastern corner of the Plan area impinges onto the Chalk.

Estimated Catchment Population

Year	Population	Change per decade
1991	170,300	
2001	188,000	+10.4%

Districts and Estimated Population (1991)

District	Persons per km ²	Ha in catchment	% area of catchment	Population in catchment
Sussex County Council		48,900	50.4%	80,900
Hastings	520	500	0.5%	2,600
Rother	160	40,600	41.8%	65,700
Wealden	160	7,800	8.1%	12,600
Kent County Council		48,160	49.6%	89,400
Ashford	110	19,100	19.6%	20,900
Shepway	210	22,300	23.0%	47,500
Tun.Wells	310	6,800	7.0%	21,000

Note: The population figures are approximate and portray overall trends rather than precise values.

River Rother Catchment Management Plan

E.2 WATER RESOURCES

Resource Areas

	Number	Ha in catchment	% area of catchment
Romney Marsh	15	20,670	21.3%
Lower Rother	16	55,880	57.6%
Upper Rother	17	20,530	21.1%

Rainfall (mm)

	Mean Year	1:10 yr Drought
Mean Annual Total	754	596
Effective Rainfall	246	133

Abstraction

Licensed Abstraction	210 Ml/day
Actual Abstraction (1989)	77 Ml/day
Actual as % of Licensed	37%
Licensed abstraction from groundwater	46 Ml/day
Percentage from groundwater	22%
Percentage in High/Med Loss category	41%

River Flow (cumecs)

		R.Rother
Mean Flow	(Q50)	0.90
95 percentile Flow	(Q95)	0.21

River Rother Catchment Management Plan

Water Supply Companies serving the catchment

	Area (Ha)	% Catchment
SEW (Eastbourne)	28,000	28.8%
SEW (Mid Sussex)	5,900	6.1%
SWS (Sussex)	13,700	14.1%
Mid Kent Water Plc	36,300	37.4%
Folkestone & Dover	13,200	13.6%

Water Supply Reservoirs

	Area (Ha)	Vol (Ml)	Reliable yield (Mld)
Darwell (SWS)	73	4,728	21.9
Powdermill (SWS)	21	856	2.1

E.3 WATER QUALITY

Length of River in each Quality Class (km)

Class	Description	Target	Achieved 1990
1A	Good	40.6	28.7
1B	Good	120.3	143.8
2	Fair	44.7	28.9
3	Poor	1.0	3.6
4	Bad	0.0	1.6
TOTAL		206.6	206.6

Length Designated under the EC Freshwater Fisheries Directive (km)

	Freshwater	Tidal
Cyprinid Designation	27.9	10.0
Salmonid Designation	3.5	0.0

River Rother Catchment Management Plan

Sewage Discharges

	Number	Consented Vol.(Ml/day)
To rivers	82	13.76
To estuary	1	1.18
To sea	1	2.70

E.4 FLOOD DEFENCE

Length of Main River (km) 324.0 (includes tidal lengths)

Length of Coastline (km)

Schedule 4	55.2
Main Tidal Waters	55.2 (included in Schedule 4)
Sea Defences (NRA)	40.0
Tidal Banks (NRA)	10.8

Internal Drainage Districts (Ha)

Romney Marsh Levels	10,451
Denge and Southbrooks	3,021
Pett	3,403
Rother	6,597
Walland	8,923

E.5 CONSERVATION

Number of Designated Sites in the Catchment

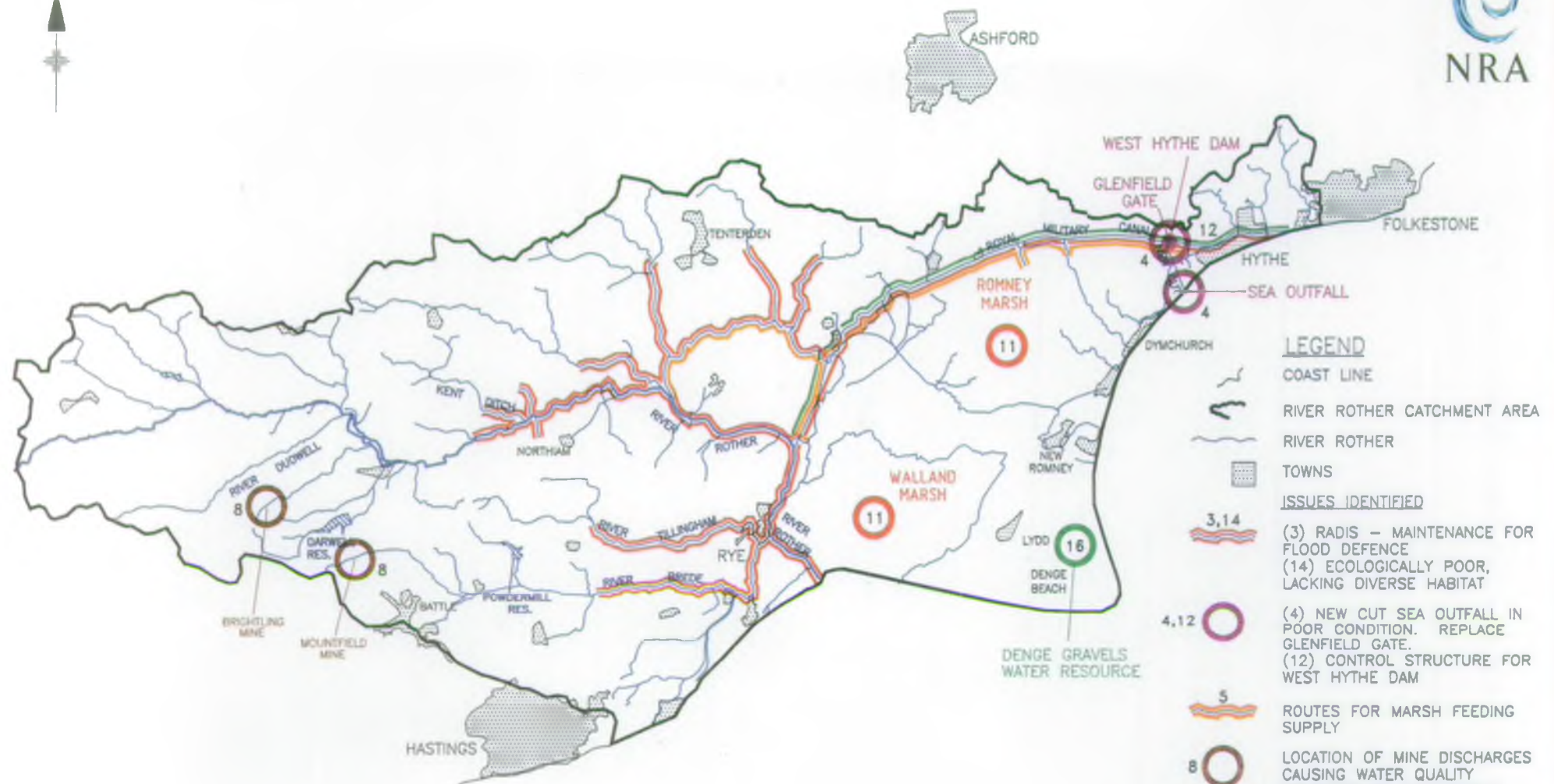
Type	Total	Water Dependent
Ramsar/Special Protection Area	1	1 (Dungeness-Pett Levels)
National Nature Reserves	1	1
Sites of Special Scientific Interest	21	18

E.6 NAVIGATION

Harbour of Rye (NRA). Commercial and pleasure craft.

Rother Estuary & Rye Harbour (NRA)	7.0 km
Rother, Scots Float - Bodiam (NRA)	20.0 km
Royal Military Canal (NRA)	23.8 km
(Shepway District Council)	7.3 km
TOTAL	58.1 km

N



LEGEND

COAST LINE

RIVER ROTHER CATCHMENT AREA

RIVER ROTHER

TOWNS

ISSUES IDENTIFIED

(3) RADIS - MAINTENANCE FOR FLOOD DEFENCE
(14) ECOLOGICALLY POOR, LACKING DIVERSE HABITAT

(4) NEW CUT SEA OUTFALL IN POOR CONDITION. REPLACE GLENFIELD GATE.
(12) CONTROL STRUCTURE FOR WEST HYTHE DAM

ROUTES FOR MARSH FEEDING SUPPLY

LOCATION OF MINE DISCHARGES CAUSING WATER QUALITY PROBLEMS TO DOWNSTREAM REACHES

EXCESSIVE WEED GROWTH ON THE ROYAL MILITARY CANAL CAUSING WATER QUALITY PROBLEMS

MARSH AREAS WITH POTENTIAL CONFLICT OVER CONTROL OF WATER LEVELS

VULNERABLE TO SALINE CONTAMINATION

0 1 2 3 4 5 10 km

CATCHMENT ISSUES

River Rother Catchment Management Plan

F. CATCHMENT ISSUES

1. The impermeable geology of the Rother catchment results in much of the rainfall draining rapidly to the sea, creating winter floods and naturally low summer flows. Subject to environmental safeguards, there is potential for additional water storage in the catchment to augment river flows in summer and to contribute to meeting the projected short-fall of water for public supply in Kent and East Sussex.
2. The groundwater resources of the catchment are limited, occurring in small, isolated aquifers, and need careful management.
3. Flood defence in the lower catchment and much of Walland Marsh depends on the RADIS scheme, which is approaching thirty years of age and is costly to maintain. Much of the mechanical plant is due for replacement, significant capital expenditure is needed to ensure the continued effectiveness of the scheme.
4. The New Cut sea outfall for the Royal Military Canal near Hythe is in poor condition and Glenfield Gate, which controls flows down this channel, needs to be replaced. Failure of the outfall could result in extensive flooding in Romney Marsh.
5. Seasonal shortages of water in the river and inefficiencies within the marsh-feeding distribution system make it difficult to provide sufficient water for the marshes during dry summers.
6. Farming activities may cause localised water pollution incidents which are exacerbated by the lack of dilution in small streams at times of low flow.
7. Similarly, in dry years, water quality problems may be caused by discharges from the numerous small sewage works which serve a dispersed population.
8. Drainage from the Mountfield and Brightling gypsum mines causes high sulphate concentrations in rivers downstream, creating problems for the public water supply source at Sedlescombe.
9. In warm summers the Royal Military Canal and marsh drains are prone to excessive growths of water weeds, which choke drainage channels and eventually rot, causing flood defence and water quality problems.
10. The control of water weeds to maintain the flow capacity of drainage channels is a major problem, with implications for water quality, fisheries, conservation, navigation and amenity interests. Mechanical cutting entails the removal of cut weeds and the benefits are short-lived; the use of herbicides may result in deoxygenation of the water and is restricted on conservation grounds, as much of the area is designated as a SSSI.
11. In the management of water levels on the marshes a balance is required between the interests of conservation, fisheries and agriculture, and between those of pastoral and arable farming.
12. The eastern end of the Royal Military Canal is isolated from the rest of the system by the dam at West Hythe and discharges direct to the sea at Seabrook. A control structure at West Hythe would enable this water to be managed as part of the Rother resource, making it available for marsh feeding when required.

River Rother Catchment Management Plan

13. Fluctuating levels and high velocities following the operation of sluices impact on fisheries and conservation interests.
14. The uniform profile of the RADIS drainage channels lacks habitat diversity, making them ecologically poor with a sparse flora and fauna.
15. Cultivation of fields to the very edge of drainage ditches may result in soil erosion, bank slips, river siltation, eutrophication of surface waters, loss of wildlife habitat, impoverishment of the landscape and access problems for channel maintenance.
16. The Denge Gravel water resource is vulnerable to saline contamination if over-abstracted, or if sea water penetrates the inland ditch system. Its yield could be reduced if gravel winning expanded in the area.
17. There is a need for close control of development in flood risk areas such as river and coastal flood plains.
18. Rising sea levels and the effects of climate change must be taken into account in future planning.
19. (NEW ISSUE identified by consultees). The valleys of the Brede, Tillingham and Panel Sewer have high conservation value which should be recognised by formal designation.

Abbreviations

The following are used in the Management Proposals and Action Programme sections of this report and refer to those bodies that are relevant to the particular proposals.

CC	Countryside Commission
DC	District Council
EN	English Nature
IDB	Internal Drainage Board
LA	Local Authority
MAFF	Ministry of Agriculture, Fisheries and Food
NRA	National Rivers Authority
RADIS	Rother Area Drainage Improvement Scheme

River Rother Catchment Management Plan

G. MANAGEMENT PROPOSALS

ISSUE 1 Seasonal shortages of water for Public Supply
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Control leakage from the water supply system. (Water Companies)* Educate the public in the wise use of water. (Water Companies, NRA)* Allocate available resources between new applicants in accordance with NRA Kent Resources Policy. (NRA)* Investigate the feasibility of importing water from the Medway into the Rother Catchment. (NRA, SWS)* Investigate additional surface water storage options. (NRA, Water Companies)
ISSUE 2 There is a need to conserve groundwater resources
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Investigate the potential for developing the groundwater for local supply. (NRA, Abstractors)* License new groundwater abstractions in accordance with the NRA Kent Resources Policy. (NRA)
ISSUE 3 Rother Area flood scheme plant and structures in need of overhaul
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Survey RADIS plant and structures to produce an asset management plan. (NRA)* Implement asset management plan. (NRA)
ISSUE 4 Outfall structures on the Royal Military Canal in need of attention
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Replace and automate Glenfield Gate at West Hythe. (NRA)* Reconstruct the New Cut outfall and tidal gate. (NRA)

River Rother Catchment Management Plan

ISSUE 5 Insufficient water in dry summers for marsh feeding
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Review marsh feeding system and co-ordinate its management. (NRA, IDB, Landowners)* Allocate management costs of marsh feeding system between beneficiaries. (NRA, IDB, Landowners)
ISSUES 6 & 7 Pollution incidents affect small streams at times of low flow
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Encourage the public to report pollution incidents promptly. (NRA)* Maintain the capability to respond to pollution incidents. (NRA)* Inspect farms and advise on best practice to avoid pollution. (NRA, Farmers)* Ensure that effluents comply with consent conditions. (NRA, Dischargers)
ISSUE 8 Drainage from gypsum mines contaminates streams with sulphate
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Negotiate improvements and determine deemed discharge consent. (NRA, Mine Owners)
ISSUE 9 Excessive weed growth blocks drainage channels and affects water quality
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Encourage farmers to use fertiliser in a way which minimises losses to the aquatic environment. (NRA, Farmers)* Promote the use of a buffer strip between cultivated land and watercourses to attenuate nutrient runoff. (NRA, MAFF, CC, EN, Farmers, Landowners)

River Rother Catchment Management Plan

ISSUE 10

The control of water weeds in drainage channels is increasingly expensive

MANAGEMENT OPTIONS

- * Investigate alternative methods of control. (EN, NRA, MAFF)
- * Liaise with English Nature to establish where herbicides may be used. (NRA, EN)
- * Encourage farmers to use fertilisers in a way which minimises losses to the aquatic environment. (NRA, Farmers)

ISSUE 11

The control of water levels for agricultural purposes conflicts with the requirements of other water users

MANAGEMENT OPTIONS

- * Improve consultation procedures and communication between interest groups. (NRA, Farmers, EN, Anglers)
- * Compile water level management plans for sensitive areas. (MAFF, NRA, IDB, Landowners, EN, CC)

ISSUE 12

West Hythe Dam prevents the Royal Military Canal being managed as a single water resource

MANAGEMENT OPTIONS

- * Install a control structure in the dam to enable water to be transferred between sections. (NRA, Shepway-DC)
- * Agree to divert excess water westwards from the Hythe section to contribute to marsh feeding. (NRA, Shepway DC)

ISSUE 13

Rapid fluctuations in water levels interfere with fisheries

MANAGEMENT OPTIONS

- * Establish guidelines for the sensitive operation of sluices. (NRA, IDB)
- * Improve liaison between the interests involved. (NRA, IDB, Landowners, Anglers)

River Rother Catchment Management Plan

ISSUE 14 Lack of ecological diversity in RADIS channels
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Incorporate conservation features in new river engineering works. (NRA, IDB)* Investigate the feasibility of remedial works for existing channels. (NRA, IDB)
ISSUE 15 Cultivation close to the channel's edge causes bank erosion and the excessive input of nutrients to watercourses
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Discourage the use of fertilisers or agricultural chemicals close to watercourses. (NRA, EN, Farmers)* Promote the use of a buffer strip between cultivated land and watercourses. (NRA, EN, CC, Farmers)* Encourage the application of land-use grant schemes to protect and enhance aquatic and wetland habitats. (MAFF, CC, EN, Farmers)
ISSUE 16 Denge Beach aquifer prone to contamination with sea water
MANAGEMENT OPTIONS
<ul style="list-style-type: none">* Monitor surface and groundwater quality in the sensitive area. (NRA, Water Company)* Ensure that the abstraction regime does not result in sea water being drawn into the aquifer. (Water Company, NRA)* Maintain sea defences and outfall structures to control salt water incursion into the freshwater system. (NRA, IDB)* Oppose the development of gravel winning at Dungeness beyond what has already been authorised. (NRA, Planning Authority)* Liaise with the Water Company and English Nature when sea defence works are proposed. (NRA, Water Company, EN)

River Rother Catchment Management Plan

ISSUE 17	
Development in flood plains and areas prone to tidal flooding increases flood risk	
MANAGEMENT OPTIONS	
*	Promote good liaison between the NRA and planning, authorities to ensure that unsuitable development does not occur. (NRA, Planning Authorities)
ISSUE 18	
Rising sea levels threaten coastal and low-lying land	
MANAGEMENT OPTIONS	
*	Take account of changing land/sea levels in land use planning, flood defence and environmental management policies. (All)
ISSUE 19	
The conservation value of the Brede, Tillingham and Panel Sewer valleys should be recognised	
MANAGEMENT OPTIONS	
*	Consider designation of suitable areas. (EN, Planning Authority, Wildlife Trust)

Table 1. ORGANISATIONS WHICH RESPONDED TO THE CONSULTATION REPORT

Ministry of Agriculture, Fisheries and Food (MAFF)

East Sussex County Council

Kent County Council

Ashford Borough Council

Tunbridge Wells Borough Council

Rother District Council

Rotherfield Parish Council

Lydd Town Council

English Nature

Folkestone and Dover Water Services Ltd

Mid Kent Water plc

South East Water Ltd

Southern Water Services Ltd

Institution of Civil Engineers

National Trust

Kent Trust for Nature Conservation

Sussex Wildlife Trust

National Association of Boat Owners

H. ACTION PROGRAMME

Management Task	95 96 97 98 99 Future	Action by	Estd £k
<u>Issue 1. Seasonal shortages of water for Public Supply</u>			
Control leakage from the supply system.	Continuing activity	Water Companies	
Educate public in the wise use of water.	Continuing activity	Water Companies,NRA	
Allocate the available water resource between new applicants in accordance with the NRA Kent Resources Policy.	Continuing activity	NRA	
Investigate the feasibility of importing water from the Medway into the Rother Catchment.	■	SWS, NRA	
Investigate additional surface water storage options.	■	NRA, Water Companies	
<u>Issue 2. There is a need to conserve groundwater resources</u>			
Investigate the potential for developing groundwater for local supply.	■	NRA, Water Companies	
License new groundwater abstractions within the terms of the NRA Kent Resources Policy.	Continuing activity	NRA	
<u>Issue 3. Rother Area flood scheme plant and structures in need of overhaul</u>			
Survey RADIS plant and structures to produce an asset management plan.	■	NRA	50
Implement asset management plan.	■	NRA	1,325
<u>Issue 4. Outfall structures on Royal Military Canal in need of attention</u>			
Replace and automate gate at West Hythe.	■	NRA	440
Reconstruct New Cut outfall and tidal gates.	■	NRA	1000

ACTION PROGRAMME (cont'd).

Management Task	95 96 97 98 99 Future	Action by	Estd £k
<u>Issue 5. Insufficient water in summer for marsh feeding</u>			
Review marsh feeding system and co-ordinate its management. Allocate costs of managing marsh feeding system between beneficiaries.	■■■■■ ■■■■■	NRA, IDB, Landowners NRA, IDB, Landowners	100
<u>Issues 6 & 7. Pollution incidents affect small streams when flows are low</u>			
Encourage the public to report pollution incidents promptly to the NRA.	Continuing activity	NRA	
Maintain the capability to make an appropriate response to pollution reports.	Continuing activity	NRA	
Inspect farms and advise farmers on best practice to minimise pollution risks.	Continuing activity	NRA, Farmers	10 pa
Ensure that effluents comply with consent conditions.	Continuing activity	NRA, Dischargers	50 pa
<u>Issue 8. Drainage from gypsum mines contaminates streams with sulphate</u>			
Negotiate improvements to the drainage system and determine the deemed consent.	■■■■■	NRA, Mineowners	
<u>Issue 9. Excessive weed growth blocks drainage channels and affects water quality.</u>			
Encourage farmers to use fertiliser in a way in which minimises losses to the environment.	Continuing activity	NRA, Farmers	
Promote the use of a buffer strip between cultivated land and watercourses to attenuate nutrient runoff.	Continuing activity	NRA, EN, CC, MAFF, Landowners	

ACTION PROGRAMME (cont'd).

Management Task	95 96 97 98 99 Future	Action by	Estd £k
<u>Issue 10. The control of weeds in drainage channels is increasingly expensive</u> Investigate alternative methods of weed control. Liaise with English Nature to establish where herbicides may be used. Encourage farmers to use fertiliser wisely and to avoid losses to watercourses.	Continuing activity Continuing activity	NRA,EN,MAFF NRA,EN NRA,Landowners	
<u>Issue 11. The control of water levels in marsh drains for agricultural purposes conflicts with the requirements of anglers, nature conservation and other water uses</u> Improve consultation between interest groups. Compile water level management plans for sensitive areas.	Continuing activity Continuing activity	NRA,Farmers,EN,Anglers MAFF,NRA,IDB,Landowners, EN,CC	
<u>Issue 12. West Hythe Dam prevents the RMC being managed as a single water resource</u> Install a control structure in West Hythe Dam to enable water to be transferred between sections. Agree to divert excess water westwards from the Hythe section to meet the demand for marsh-feeding.	■■■■■ ■■■■■	NRA,Shepway DC NRA,Shepway DC	50
<u>Issue 13. Rapid fluctuations in water levels interfere with fisheries</u> Establish guidelines for the sensitive operation of water control structures. Improve liaison between the interests involved.	■■■■■ Continuing activity	NRA,IDB NRA,IDB,Landowners	

ACTION PROGRAMME (cont'd).

Management Task	95 96 97 98 99 Future	Action by	Estd £k
<u>Issue 14. Main drainage channels lack ecological diversity</u>			
Incorporate conservation features in new river engineering works. Investigate the feasibility of remedial works for existing channels.	As schemes are built ██████	NRA, IDB NRA, IDB	
<u>Issue 15. Cultivation to the channel's edge causes bank erosion and the excessive input of nutrients to watercourses</u>			
Discourage the use of fertilisers close to watercourses. Promote the use of a buffer strip of uncultivated land beside watercourses.	Continuing activity	NRA,EN,Farmers	
Encourage the use land-use grant schemes to protect and enhance wetland habitats.	Continuing activity	NRA,EN,CC,MAFF,Farmers	
	Continuing activity	NRA,EN,CC,MAFF,Farmers	
<u>Issue 16. Denge Beach aquifer prone to contamination with sea water</u>			
Monitor the quality of surface and groundwater in the sensitive area.	Continuing activity	NRA,Water Company	
Ensure that the abstraction regime does not result in sea water being drawn into the aquifer.	Continuing activity	NRA,Water Company	
Maintain sea defences and drainage outfall structures to control the incursion of seawater into the freshwater system.	Continuing activity	NRA,IDB	900
Oppose the development of gravel winning at Dungeness beyond what has already been authorised.	Continuing activity	NRA, Planning Authority	
Liaise with Water Company and English Nature when sea defence works are proposed.	Continuing activity	NRA,Water Company,MAFF	

ACTION PROGRAMME (cont'd).

Management Task	95 96 97 98 99 Future	Action by	Estd £k
<u>Issue 17. Development in flood plains increases flood risks</u>			
Promote good liaison between NRA and planning authorities to ensure that unsuitable development does not occur.	Continuing activity	NRA, Planning Authorities	
<u>Issue 18. Rising sea levels will affect coastal and low-lying land</u>			
Take account of post-glacial subsidence and the possible effects of climate change in land use planning, flood defence and environmental management policies.	Continuing activity	All (NRA cost quoted)	11,000
<u>Issue 19. The Brede, Tillingham and Panel Sewer Valleys have high conservation interest which should be protected</u>			
Consider designation of suitable areas.	Continuing activity	EN, County Council, Wildlife Trust	

TELEPHONE THE EMERGENCY HOTLINE TO REPORT ALL ENVIRONMENTAL INCIDENTS, SUCH AS POLLUTION, POACHING AND FLOODING, OR ANY SIGNS OF DAMAGE OR DANGER TO OUR RIVERS, LAKES AND COASTAL WATERS. YOUR PROMPT ACTION WILL HELP THE NRA TO PROTECT WATER, WILDLIFE, PEOPLE AND PROPERTY.

NRA EMERGENCY HOTLINE

0800 80 70 60

24 HOUR EMERGENCY TELEPHONE LINE



NRA

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