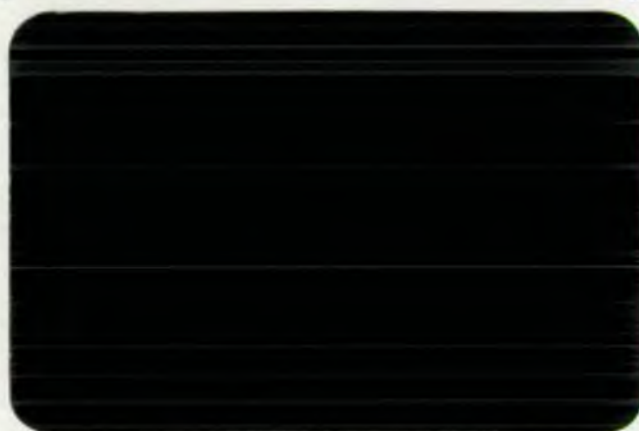


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15 FEB 2001



A SUSTAINABLE FUTURE FOR THE HUMBER ESTUARY



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ENVIRONMENT
AGENCY

HUMBER ACTION PLAN
ANNUAL REVIEW FOR 2000

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ENVIRONMENT AGENCY



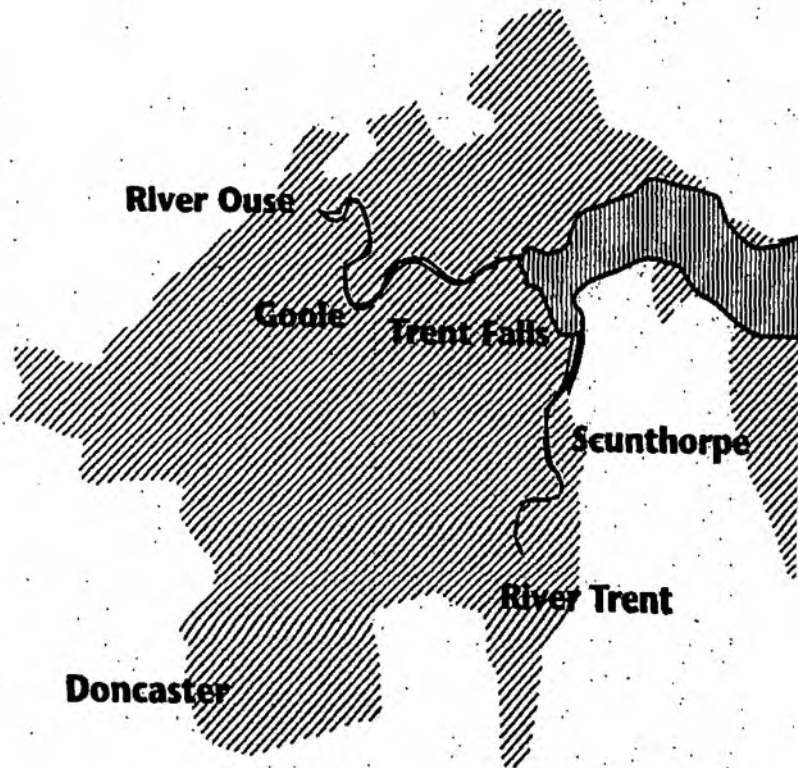
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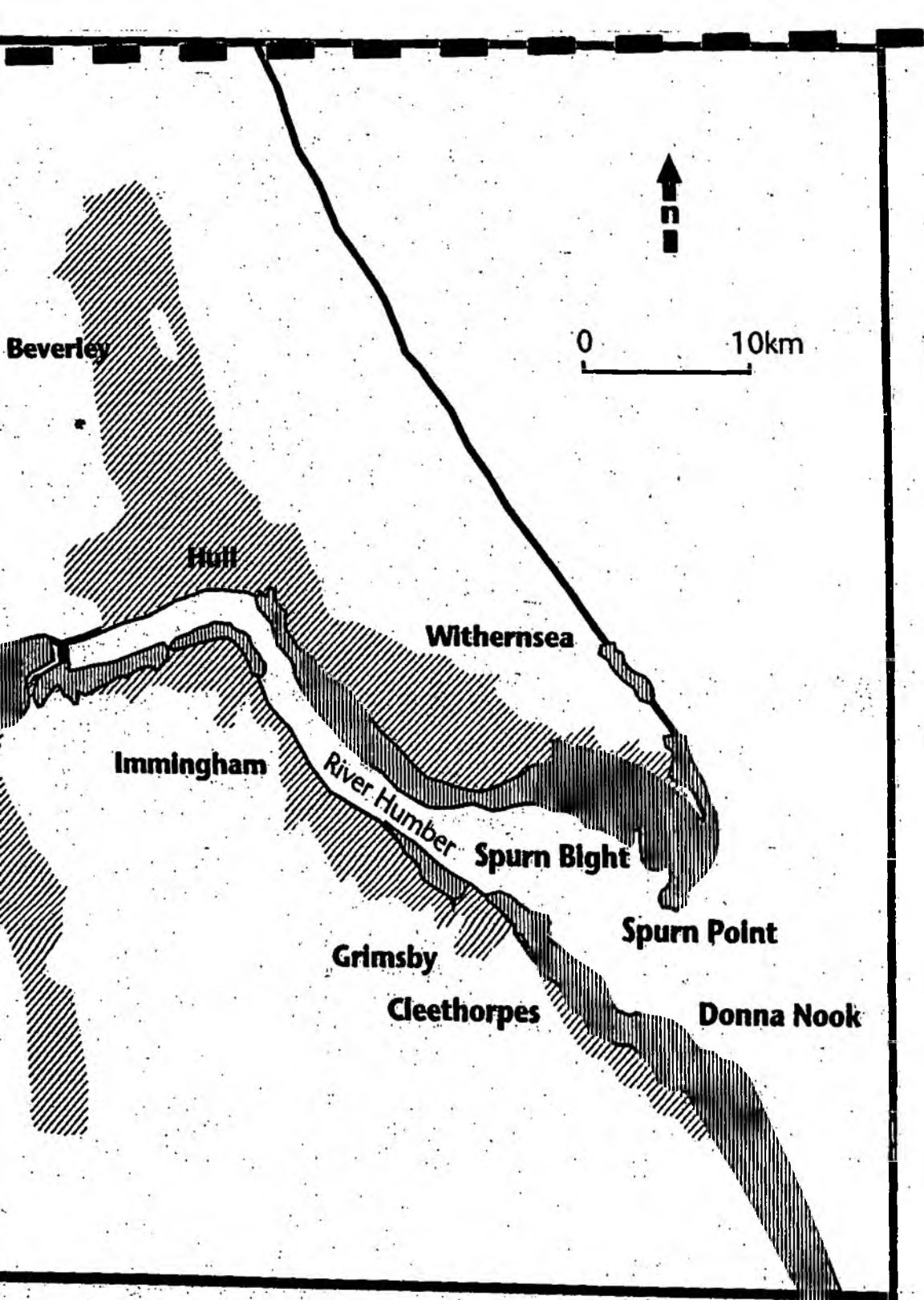


Tidal Flood Risk Area



Humber Nature Conservation sites





ENVIRONMENT AGENCY'S VISION AND KEY OBJECTIVES FOR THE HUMBER

VISION

To work towards the sustainable management of the Humber Estuary as a whole, balancing the legitimate interests of all aspects of the estuary.

KEY OBJECTIVES

- to maintain and enhance its current national and international nature conservation value
- to reduce the flooding risk to people and the developed and natural environment
- to reduce the discharge of dangerous substances to the North Sea and improve water quality of the Tidal Ouse
- to improve or restore the run of migratory salmonids into the Humber's tributaries
- to manage flows for the Trent and Ouse, balancing the needs of all water users
- to ensure that the recreational potential is improved
- to work with all relevant parties towards sustainable development
- to balance the needs of commercial navigation and industrial, urban and agricultural development with the requirements of the environment
- to improve our knowledge of the relationships between sedimentary processes, rising sea levels and the natural boundaries of the Estuary
- to achieve major and continuous improvements in air quality
- to reduce the amount of waste by encouraging reduction at source, recovery and recycling of waste
- to improve waste disposal standards.

ENVIRONMENT AGENCY

HUMBER ACTION PLAN: ANNUAL REVIEW FOR 2000

This is the second Annual Review summarising the progress made on implementing actions set out in the Environment Agency's Humber Action Plan published in 1998. Notable achievements during the year include:

- First Humber Estuary Shoreline Management Plan (HESMP) published.
- Start made on HESMP Refinement Project including further Geomorphological Studies.
- Programme of "Urgent" Flood Defence works reviewed and updated.
- Start made on producing Guidance for land use plans and proposed developments on the Humber's flood plain.
- Progress made by water companies on sewerage and sewage treatment facilities at Cleethorpes/Grimsby, Hull and Immingham, programme of further improvements to facilities agreed.
- Position Statement on Humber Fisheries produced.
- Agency contributions on rising sea level and development in flood plains influenced policies in the draft Regional Planning Guidance for Yorkshire and Humberside and the Regional Sustainable Development Framework.

During the year English Nature announced the intention to extend the Humber Special Protection Area for Birds to include nearly the entire inter-tidal habitat of the Estuary and the Ouse up to the M62 Bridge near Goole. The Estuary also became a candidate Special Area of Conservation under the Habitats Directive. The "Relevant Authorities" commenced work on preparing the Scheme of Management for the European Marine Site, which is required by the Habitats Regulations 1994.

The Humber's importance for economic development is recognised by the Humber Trade Zone in the Regional Economic Strategy for Yorkshire and the Humber, and by further investment in port facilities at Hull and Immingham by Associated British Ports. Flood defences protect much industry and high-grade farmland as well as the homes of over a third of a million people.

The many pressures on the Estuary and potentially competing activities mean that there is a real need for management to ensure that the needs of one do not harm the needs of others. So that the Agency meets all its aims, it has adopted a number of approaches, which help to ensure that by meeting its own targets, it is also contributing to the continued and future well being of the Humber Estuary and the local community. These include:

Managing the Estuary as a single entity and not on a piecemeal basis;

Identifying clear targets for work and operating in an open and Business-like way;

Working in consistent ways across all the functions and operational units of the Agency.

The need to work with the many interested parties and the community is reflected in membership of the Steering Committee for our Humber Estuary Shoreline Management Plan and in the extensive consultation undertaken on "Planning for the Rising Tides". We are an active partner of Humber Estuary Management Strategy (HEMS), working for the benefit of the whole Estuary to targets which are not just those of the Agency but of all those involved.

The state of the Humber is in part dependent on activities in the inland catchments. The relevant Local Environment Agency Plans (LEAPS) are given at the end of this section.

In the Humber Action Plan the actions are expressed as "The Agency will" statements in relation to the 13 key issues of the Humber Estuary Management Strategy. This framework is followed in this review. It should be noted that some tasks related to the HEMS key issues are outside the remit of the Environment Agency and are the province of other organisations. Likewise to achieve many of "The Agency will" statements requires working in partnership with others.

The HEMS Key Issues

1. We need a strategic planning framework to guide co-ordination and co-operation between all organisations with responsibilities for planning and management of land and water use activities in the HEMS area.
2. We need to improve our understanding of the physical and sedimentary processes at work in the Humber Estuary, so it can be managed in a sustainable way.
3. We need to understand the physical processes linking the Estuary and adjacent open coastlines, so they can be considered carefully in strategy development and land use planning.
4. We need to respond to predicted rates of sea level rise and coastal squeeze.
5. We need to protect people, property and key areas of land/infrastructure from flooding and maintain conservation. We also need to decide how to balance these requirements to provide long term effective and sustainable tidal defences.
6. We need to integrate the conservation and enhancement of the internationally important sites (Special Protection Areas, SPA) on the Estuary with the development needs of ports and industry.
7. We need to improve water quality in the Humber Estuary to comply with National and European standards and encourage effluent discharges to adopt the Integrated Pollution Control (IPC) concept.
8. We need to promote the benefits of waste minimisation more widely.
9. We need to promote the benefits of reclaiming areas of contaminated land more widely, to reduce pressure on green field sites, and to promote redevelopment for economic use and environmental gain.
10. We need to ensure the sustainable economic development of the Estuary's ports, wharves and industrial base.
11. A framework is needed to guide recreational management of the Estuary and its environs, ensuring integration with other estuary interests.
12. We need to ensure the sustainability of current and future tourism on the Humber.
13. We need to improve education and establish information exchange initiatives based on the HEMS region, and to encourage research and development work on the many issues associated with estuary management.

**LOCAL ENVIRONMENT AGENCY PLANS (LEAPS) IN THE
HUMBER CATCHMENT**

Catchment	Date of LEAP Action Plan
Aire	1998
Calder	1998
South Yorkshire & North Derbyshire	1997
Hull & East Riding	1997
Derwent (Yorkshire)	1998
Nidd and Wharfe	1998
Swale/Ure/Ouse	1998
Grimsby & Ancholme	2000
Louth & Coast	1999
Lower Trent & Erewash	2000
Idle & Torne	2000
Soar	1998
Derbyshire Derwent	1999
Dove	2000
Burton/Nuneaton/Tamworth	2000
West Midlands Tame	1999
Staffordshire Trent Valley	1998

HUMBER ACTION PLAN ANNUAL REVIEW FOR 2000

Key Issue 1

We need a strategic planning framework to guide co-ordination and co-operation between all organisations with responsibilities for planning and management of land and water use activities in the HEMS area.

The Agency Will	Timescale	Progress
1.1 Continue to develop our long term Flood Defence Strategy in liaison with partner organisations.	1997 – 2000 (and now continuing to 2002)	Partners have been of great help in the development of the Shoreline Management Plan (published in September 2000) particularly by the contributions of those that serve on the Liaison Panel and Steering Committee. The latter was expanded by the addition of representatives from a Local Planning Authority, the Country Landowners Association and the Farming and Rural Conservation Agency. See also Issue 3.1.
1.2 Identify from the Estuary Shoreline Management Plan (SMP) the Estuary-wide issues associated with the Agency's actions and work with the Local Authorities and others to ensure that the implications are properly addressed.	1999 – 2000	The Humber Estuary Shoreline Management Plan (HESMP) sets out the issues related to the long term flood defence strategy and the action being taken to progress them.
1.3 Provide Local Planning Authorities with specific guidance on issues of direct interest to the Agency's functions.	Ongoing	The indicative flood plain maps showing the areas where tidal flooding could occur have been updated. Guidance for Local Planning Authorities and developers on planning issues in this area is being prepared for publication in 2001.
1.4 Organise a conference/workshop for all Planners involved with the Humber.	1998/99 (and ongoing)	A workshop took place in 1999 and regular meetings are now held.

Key Issue 1 (cont.)

The Agency Will	Timescale	Progress
<p>1.5 Liaise with individual Planning Authorities and with Government Office, the new RDA, Regional Assembly and Regional Chamber for Yorkshire and Humberside.</p>	<p>Ongoing</p>	<p>The Agency is represented on the Regional Chamber and has had staff seconded to the Regional Assembly. We commented on Yorkshire Forward's Regional Economic Strategy and the proposals for a Humber Trade Zone. The importance of including environmental issues and undertaking a sustainability appraisal was made. We took part in the Public Examination of the Draft Planning Guidance for Yorkshire and Humberside, which was held in June/ July 2000. The Secretary of State's approval is expected in Spring 2001. We are active in the work of the Regional Chamber including its Sustainability Commission. The Regional Sustainable Development Plan was published with sections on "Minimal Pollution Levels" and "Greenhouse Gases and Response to Climate Change" largely drafted by Agency staff. Sea level rise featured in our response for these planning exercises. A study on the Impacts of Climate Change is planned for 2001.</p> <p>Planning Policy Guidance 25 on "Flood Plains and Development" was published for consultation and the final version is expected from DETR early in 2001. This will be important for ensuring that development does not take place in flood risk areas save in exceptional circumstances. It will thus reinforce the Agency's representations on land use planning.</p>

Key Issue 1 (cont.)

The Agency Will		Timescale	Progress
1.6	Continue to provide input to Local Authority Plans and strategies and give advice to developers.	Ongoing	Comments are made on development plans and on appropriate applications for planning permission, in particular the structure plans being prepared for East Riding of Yorkshire/Kingston upon Hull and North/ North East Lincolnshire. The Humber Planning Guidance (see 1.3) will contribute to this process.
1.7	Work with others to develop and implement Emergency Planning and Response for the Humber Area.	1998 onwards	The Agency is a member of the Humberside Emergency Planning Strategy Group and the Humberside Joint Emergency Services Planning Committee. It is a consultee for the Oil Spillage Emergency Plan and took part in the HUMEX 2000 exercise in February 2000 (see also 7.8).

Key Issue 2

We need to improve our understanding of the physical and sedimentary processes at work in the Humber Estuary, so it can be managed in a sustainable way.

The Agency Will		Timescale	Progress
2.1	Carry out geomorphological studies to develop an improved understanding of the estuarine sedimentary processes and morphology of the Estuary and how the processes interact.	1998 – 2001 (and continuing to 2002)	) Phase 2 studies completed Autumn 1999 and results) used in development the SMP. A Verification Panel) of independent experts has been established to peer) review the work. Phase 3 of Geo Studies will be) undertaken in 2001/02 as part of the HESMP) Refinement Project. In particular potential managed) retreat sites will be appraised.)
2.2	Build and verify models within a programme of geomorphological studies, which can be used in the consultation process with other Agencies in determining a long term approach.	1998 – 99 (and continuing to 2002)	) Delft Hydraulics has been appointed to the) consortium of consultants and research institutes.
2.3	Develop an Estuary Shoreline Management Plan.		See 3.1
2.4	Complete other Strategic Studies		
	- Joint Probability Analysis	Completed 1999	Information on water levels resulting from the interaction of tides, surges, waves and sea level rise.
	- Archaeological Audit	Completed 1999 (and extended to 2001)	Archaeological and cultural heritage reference material, to be developed further. Another Archaeological Study was commenced in 2000 for completion in 2001.

Key Issue 2 (cont.)

The Agency Will	Timescale	Progress
- Humber Estuary Environmental Baseline Study (HEEBS)	Completed 1999	GIS-based data system of information on flood defence assets, physical features, ecology, discharges, abstractions, administration, cultural heritage, economic activities, etc. This system will continue to be developed, eg with the results of the Archaeological Study.
- Habitat Migration Study	Completed 1999	Study of the habitats that would develop if flood defences are removed. There will be further refinement as the HESMP project progresses

Key Issue 3 We need to understand the physical processes linking the Estuary and adjacent open coastlines, so they can be considered carefully in strategy development and land use planning.

The Agency Will	Timescale	Progress
<p>3.1 Prepare an Estuary Shoreline Management Plan and carry out geomorphological and other studies to help develop sustainable flood defence management policies and practices. Sea level rise will be one of the factors taken into account.</p>	<p>10/97 4-6/99 10/99-2/00 Sept 2000 2000/02 Post 2002</p>	<p>Geomorphological and other strategic studies (see Issues 2) Shoreline Management Plan</p> <ul style="list-style-type: none"> • Initial planning report • First consultation period • Options consultation period • First HESMP "Planning for the Rising Tides" published <p>HESMP Refinement Project commenced to provide a comprehensive revision of SMP, particularly looking at the alignment of flood embankments and potential options for their setback to create new inter-tidal habitat. The issue of "coastal squeeze" is being examined with a Preliminary Humber ChaMP produced in 2000. This will be developed as part of the Refinement Project. Periodic reviews</p>
<p>3.2 In the short term carry out "Urgent Works" using procedures agreed with our key partners.</p>	<p>1998-02</p>	<p>In progress. The procedures were revised in 2000 to take account of the development of the SMP and Strategic Studies. A major review of the programme was undertaken (see Appendix). See also 5.3</p>
<p>3.3 Develop educational facilities, which explain sea level rise, global warming and coastal squeeze and what actions can be taken.</p>	<p>2000 onwards</p>	<p>Initial information given in "Planning for the Rising Tides" and provided for a number of projects (see 1.5). Further information to be provided for The Deep Millennium project in 2001.</p>

Key Issue 3 (cont.)

The Agency Will	Timescale	Progress
3.4 Link our Strategic Studies and SMP with the coastal SMPs carried out by the Humber Estuary Coastal Authorities Group (HECAG) and Anglian Coastal Authorities Group (ACAG).	2000 (continuing)	The Agency is represented on HECAG and ACAG, and interactions are taken into account. Southern North Sea Sediments Project starting.
3.5 Work with local agencies and research institutes whose work and information have a potential impact upon the development of a long term strategy.	Ongoing	The Humber Estuary Scientific Advisory Committee has provided a forum for the exchange of information.
3.6 Continue to support the Steering Group which advises the Agency on the production of the Humber SMP and contains representatives from key organisations.	Ongoing	The Steering Committee meets regularly during the development of the plan. A small group of members form the Liaison Panel and in particular advise on consultation arrangements.
3.7 Consult widely over the development of the long-term strategy so that all those who wish to have an input can do so.	1998 onwards	Two consultation exercises undertaken for HESMP and further consultation planned as part of the Refinement Project.

Key Issue 4

We need to respond to predicted rates of sea level rise and coastal squeeze

The Agency Will		Timescale	Progress
4.1	Prepare an Estuary SMP taking into account sea level rise.	Ongoing	See issue 3.1.
4.2	In the short term, carry out "Urgent Works" using procedures agreed with our key partners.		See issue 3.2 and Appendix.
4.3	As part of the precautionary approach, work with local authorities to look at areas of land which may not be defensible in the long term.		Work has started to identify areas to set back defences and include retreat of the defence line at Thorgumbald. A feasibility study of other potential areas of habitat creation, including at Alkborough is being undertaken as part of the HESMP Refinement Project.
4.4	Develop education facilities which explain sea level rise and coastal squeeze and what actions can be taken.	2000	"Planning for the Rising Tides" sent to schools and libraries in the Humber area. Other initiatives to be developed.
4.5	Carry out research with other key organisations to make sure we fully understand any new information about any of these major concerns.	1999 onwards	See 3.4 and 3.6

Key Issue 5

We need to protect people, property and key areas of land/infrastructure from flooding and maintain conservation.

We also need to decide how to balance these requirements to provide long term effective and sustainable tidal defences.

The Agency Will		Timescale	Progress
5.1	Carry out flood defence work in line with objectives identified with MAFF and English Nature.	Ongoing	There is regular liaison with these organisations and other partners.
5.2	Produce a long-term strategy for flood defence through wide consultation.	1998 – 2002	Output of HESMP (see 3.1).
5.3	Carry out urgent flood defence works in line with procedures which ensure that work is done in an open and easily followed manner.	Ongoing	<p>There is regular liaison with these and other organisations.</p> <p>Schemes for Albert Dock, and Alexandra and King George Docks, Hull were largely completed, as were the Goole Hall and Reedness 1 schemes beside the Ouse.</p> <p>New lock gates forming part of the flood defence are to be fitted at Victoria Lock, Goole and Albert Dock, Hull in 2001.</p> <p>Progress was made, albeit slowly, in gaining approvals and land for the managed retreat site at Thorngumbald, which provides improved defence and mitigation for the loss of some inter-tidal habitat resulting from three urgently needed schemes at Pyewipe.</p> <p>See also Appendix.</p>
5.4	Defer flood defence work, which is not required urgently. This ensures that essential works are given the highest priority, whilst those less urgent will be undertaken as part of the strategy.	Ongoing	The start dates of a number of the schemes given in the Appendix have been put back.

Key Issue 5 (cont.)

The Agency Will	Timescale	Progress
5.5 Produce environmental Action Plans for each scheme following consultation. These will commit us to the protection and improvement of the environment based on enhancement guidelines produced by the Agency and the Humber Biodiversity Action Plans.	Ongoing	Action plans are produced for each scheme setting out how to minimise impacts and undertake enhancements. An Agency Ecologist monitors the construction of each scheme and provides advice.
5.6 Continue to improve the flood warning service.	Ongoing	The Agency's Floods Action Plan is being implemented. Emergency Planning Seminars on the response to flooding and joint exercises are to be held. A national flood awareness campaign commenced in the Autumn of 1999. New flood warning codes introduced in September 2000.
5.7 Monitor the state of the flood defences in a routine and consistent manner to ensure that the urgent works are identified as soon as possible.	Ongoing	Asset surveys undertaken, protocols developed to ensure consistency. Major survey using LIDAR flown in 2000.
5.8 Examine all proposals for flood defence work to make sure that the final option does not prejudice the implementation of the long term flood defence strategy in preparation.	As proposals are put forward	The Urgent Works Procedures and Programme were updated in 2000 (see 3.2).

Key Issue 6

We need to integrate the conservation and enhancement of the internationally important sites (Special Protection Areas, SPA) on the Estuary with the development needs of ports and industry.

The Agency Will	Timescale	Progress
English Nature has consulted on the extension of the Humber Special Conservation for Birds (largely the inter-tidal habitat) and the designation of a Humber Special Area of Conservation under the Habitats Directive.	2000-02	The Agency welcomed the new designations in principle. The Conservation Objectives for the areas are expected to be provided by EN in 2000/01. The Habitats Regulations 1994 requires "Relevant Authorities" to prepare a Single Scheme of Management. The Group was established in 2000 and is chaired by the Agency.
6.1 Undertake Environmental Assessment of all our proposed works within the Estuary and take into account wider environmental implications of our work throughout the Estuary as a whole.	Ongoing	The Humber Estuary Environmental Baseline Study (HEEBS) has been produced and provides information for the appraisal and environmental statement of flood defence schemes. It provides information as well for other planning purposes. The Humber ChaMP is another source of guidance.
6.2 Review all permissions which could be influenced by the Habitats Directive. We will continue supporting a group which has been formed to start the process of developing a Biodiversity Action Plan (BAP) for the Humber which includes English Nature, Local Authorities, RSPB, the Wildlife Trusts and the Agency. The Plan will help identify the conservation objectives which we and others need to target as part of any actions.	2000 onwards	Preparations are being made for the review of permissions required by the Directive. A number of HEMS partners have drafted a Local Biodiversity Action Plan for the Humber. The BAP has not yet been adopted but may be included in relevant LA BAPs and provides much useful information for planning purposes and the Humber ChaMP.

Key Issue 6 (cont.)

The Agency Will	Timescale	Progress
6.3 Produce Environmental Action Plans which describe the way in which our works will be carried out to avoid damage to the environment and where appropriate, improve it, particularly for flood defence works.	Ongoing	In progress (see 5.5).
6.4 Fund a Farming and Wildlife Group Advisory Post in East Yorkshire which will specifically promote farming and land use practices minimising pollution, reducing impacts upon the surface and groundwater quality and identify positive conservation benefits.	1998-99	The work of FWAG has been supported.
6.5 Promote conservation enhancement through strategic land use planning. We will work with the unitary authorities to ensure that Agency interests are fully taken into account in the planning process. We will examine development plans and be prepared to justify our proposals at appeals when necessary.	Ongoing	See Key Issues 1.3, 1.5 and 4.3.
6.6 Develop a more positive approach to Estuary wide mitigation and produce an Estuary wide guidance note in conjunction with others on enhancement opportunities.	Ongoing	The Humber CHaMP will be the key decision-making guide for this task. Mitigation is included in individual schemes. Strategic projects are being investigated. A Habitats Migration study was undertaken for the Shoreline Management Plan.
Evaluate new port development proposals	1999-01	The Agency issued a Waste Management Licence for storage of infill material for the construction of the berth at Queen Elizabeth Dock, Hull. The Agency is being consulted on Quay 2005 at Hull and the HIT 3 project at Hull.

Key Issue 7 We need to improve water quality in the Humber Estuary to comply with National and European standards, and encourage effluent dischargers to adopt the Integrated Pollution Control (IPC) concept.

The Agency Will	Timescale	Progress
<p>7.1 Reduce pollution by enforcing discharge consents and IPC authorisations (based on BATNEEC and BPEO) and by encouraging industry to adopt waste minimisation.</p>	<p>Ongoing</p>	<p>The Estuary, rivers and effluents are monitored and consents and authorisations are enforced. Waste minimisation projects have been undertaken in South Yorkshire and Selby, and by many individual firms. Permissions will be re-assessed in relation to the Habitats Directive objectives for the Humber commencing in 2000. Harlow Chemicals reduced discharges of endocrine disrupting substances by 60%, further reductions are planned. Following the closure of Hydro Agri UK discharges of ammonia, ammonium nitrate and acidic effluent from this site will cease.</p> <p>BP at Saltend has a major investment programme and IPPC applications were received for Vinyl Acetate Monomer and Ethyl Acetate plants.</p> <p>An IPPC authorisation was granted for an incinerator at Grimsby and an application for one at Hull was received. The proposal for one at Goole was withdrawn.</p> <p>The Cleethorpes bathing beach met the standards of the European Bathing Waters Directive in 2000 are much investment in sewerage and sewage treatment. Investigations are in progress on methods to reduce the numbers of fish sucked into power station cooling water intakes.</p>

Key Issue 7 (cont.)

The Agency Will	Timescale	Progress
7.2 Improve effluent treatment using Urban Wastewater Treatment Directive for Selby and Thorne STW and ensure the provision for the first time for Goole, Grimsby, Hull and Immingham by 31.12.2000 (action by AWS, YWS).	1998-2000	Secondary treatment was commissioned at Thorne in 1998 and at Selby, Goole and Grimsby (Pyewipe) in 1999. Combined sewage overflow schemes in Cleethorpes/Grimsby were also completed. First time sewage treatment facilities for Hull and Immingham are being constructed – sewage from East Hull is now treated and that from the western part of the City will be treated when the sewer tunnel is completed in 2001.

Key Issue 7 (cont.)

The Agency Will	Timescale	Progress
<p>7.3 Continue to improve water quality of Aire, Calder, Don, Rother and Dearne catchments.</p>	<p>1995-2005</p>	<p>Yorkshire Water's second Asset Management Plan (AMP 2) included improvements to major sewage treatment works serving Halifax, Huddersfield, Dewsbury, Castleford, Bradford, Leeds, Barnsley, Doncaster and York. Improvements in river water quality have occurred and fisheries are developing. AMP 3 during the period 2000-2005 will lead to further improvements and in particular will reduce intermittent pollution from combined sewer overflows. Schemes relevant to the tidal rivers and Humber include:</p> <ul style="list-style-type: none"> Rawcliffe North Ferriby Ellerker Brough Howdendyke Swinefleet Melton Ferriby High Road Kelfield Reedness Welton Hessle (Wintersgill) Gilberdyke Gilberdyke Thiepval Wheel Hall Cliffe Cottages (Hessle) Hull Pilots Way Saltend

Key Issue 7 (cont.)

The Agency Will	Timescale	Progress
7.4 Achieve a reduction in organic pollution discharged to the tidal Ouse by a programme of consent review and treatment improvements at a number of trade premises in the Selby area.	Ongoing	Discharge consents and IPC authorisations have been tightened and the amount of organic matter discharged has fallen. A cost-benefit analysis of further reduction of effluent inputs to the Ouse has been undertaken with the University of York. The results are being evaluated and detailed analysis of dissolved oxygen records is to be undertaken.
7.5 Carry out pollution prevention inspections at appropriate sites in the catchment.)
7.6 Ensure that industrial sites with high pollution risks are located in areas where pollutants can be easily excluded from surface and groundwater.	Ongoing	) Routine prevention and inspection work, input into) planning applications, advocacy of sustainable) urban drainage techniques, use of pollution) prevention powers under IPC and water quality) legislation. Integrated Pollution Prevention and) Control is being phased in over the period 1999-00.
7.7 Ensure design and construction of new industrial sites minimise Risk and that appropriate pollution prevention and control equipment is in place and tested.		) A spillage of approx 30 tonnes of crude oil occurred) in December 2000 at the Tetney monobuoy.)
7.8 Ensure adequate emergency procedures are in place, publicised And tested.	1999-2000	Agency participated in HUMEX 1999 and 2000 oil pollution exercises and developed its emergency planning and response procedures. A "Standing Environment Group" of organisations has been established.
7.9 Produce a State of the Environment Report (SOER) of the Estuary using the most up to date information.	1999	The report published in spring 1999 has been widely distributed.
	2000	The Humber Estuary State of the Environment: 1998 Technical Report was published.

Key Issue 7 (cont.)

The Agency Will	Timescale	Progress
7.10 Review the monitoring of the Estuary which is done by the Agency.	1999 onwards	An initial rationalisation of the chemical monitoring programme and the dissolved oxygen monitors was undertaken. Some gaps in monitoring were filled and some cost savings made.
7.11 Use of the information from this review and the State of the Environment Report (SOER) to identify a co-ordinated programme of monitoring which will be targeted, cost-effective and capable of demonstrating whether the Agency is achieving its duties.	2000 onwards	Monitoring programmes are to be rationalised further in line with national guidelines for estuaries. Methods of making data and information more available to the public will be assessed, including the use of the Internet.
Management of the Humber's developing fisheries	2000 onwards	<p>A Position Statement on "Fisheries in the Humber" was produced, which described the developing resource resulting from the reduction in pollution although there is some way to go to achieve the dissolve oxygen standards for migratory fish in the Tidal Ouse. Salmon fry have been introduced into some of the tributaries of the Trent to encourage the rehabilitation of this fishery. Endangered Thwait Shad and lamprey are found in the Humber and are included as a reason for the designation of the Special Area of Conservation.</p> <p>The funding of fisheries management, including harmonising the regulation of the eel fishery, has still to be determined.</p>

Key Issue 7 (cont.)

The Agency Will	Timescale	Progress
Catchment Abstraction Management Strategies (CAMS)	2001-06	CAMS are to be prepared for the inland catchments draining to the Humber and will take into account the needs of the Estuary for freshwater, for water quality, navigation, fisheries and wildlife, particularly at times of low flows.

Key Issue 8

We need to promote the benefits of waste minimisation more widely.

The Agency Will	Timescale	Progress
8.1 Provide a high quality waste regulation service.	Ongoing	The Agency is the regulator concerned with licensing the transport, handling, storage and disposal of waste.
8.2 Develop an overall database of waste arising and disposals.	1998/99 2002 onwards	The National Waste Survey was completed and the data are being used by the Government in development of the National Waste Strategy "A Way with Waste"(1999). The next survey is due in 2002.
8.3 Measure the effectiveness of taxation to reduce waste and to encourage its re-use and recycling.	Ongoing	National task, little information on the impact of the Landfill Tax is available as yet.
8.4 Implement the "producer responsibility" regulations.	Ongoing	The Packaging Regulations came in in 1997 and non-statutory industry initiatives are being developed for newspapers, vehicles, tyres and electrical goods.
8.5 Develop life-cycle assessment methodologies for dealing with waste.	2000	The Agency is developing tools to aid Local Authorities and others concerned with national and regional waste planning.
8.6 Encourage and inspire industry to develop new and improved techniques for the management of special and other industrial wastes.	) ) ) Ongoing )	) The Agency promotes waste minimisation and) works with industry, green business clubs and) business support organisations. This includes) initiatives around the Humber, such as the Humber
8.7 Ensure achievement of national waste strategy targets for the reduction of waste disposed to landfill.	) )	) Food and Environment Network, of which it is a) sponsor.

Key Issue 8 (cont.)

The Agency Will	Timescale	Progress
8.8 Ensure achievement of national targets for the recovery, recycling and composting of municipal waste.		The Government undertook consultation on its national waste strategy "A Way with Waste" in 1999. A Strategic Waste Management Assessment for the Yorkshire and Humberside Region was produced in 2000 and will be reviewed every 3 years.

Key Issue 9 We need to promote the benefits of reclaiming areas of contaminated land more widely, to reduce pressure on green field sites, and to promote redevelopment for economic use and environmental gain.

The Agency Will	Timescale	Progress
9.1 Work with the local authorities providing support and advice when bidding for funds to ensure appropriate remediation of contaminated land, eg, Watersedge, Barton on Humber and Macauley Lane (Grimsby) sites.	Ongoing	Remediation is being progressed at Barton and Grimsby. Further clean up work has been undertaken at the former Capper Pass site at North Ferriby.
9.2 Ensure appropriate remediation in consultation with others where sites are designated "special" within the meaning of the Contaminated Land Regulations.	2000 onwards	The Environment Agency is working closely with local authorities implementing the Contaminated Land Regulations.
9.3 Implement our policy and practice for the protection of groundwater, and seek support from Local Authorities and Developers.	Ongoing	Policy widely accepted. Groundwater Regulations became operative in 1999.
9.4 Exercise our pollution control powers to reduce the risk of future contamination.	Ongoing	Powers of regulation used where available and advice given.
9.5 Work with Local Authorities to identify and report on the extent of contaminated land.	2000 onwards)
9.6 Regulate identified special contaminated land sites effectively.	2000 onwards	) Regulations are now in force (see 9.2)
9.7 Support any research into the specific risks on contaminated land and remediation methods.	Ongoing	) Agency has a national programme of research.

Key Issue 9 (cont.)

The Agency Will		Timescale	Progress
9.8	Reduce the environmental and economic burden of dealing with contaminated land by working with others on reclamation projects.	Ongoing	The Agency works closely with Yorkshire Forward and local authorities.
9.9	Reduce the risk of further contaminated land sites developing in the future through planning advice.	Ongoing	Recommendations made and use of other powers the Agency has, eg the Groundwater Protection Policy, Waste Licensing and IPPC.

Key Issue 10

We need to ensure the sustainable economic development of the Estuary's ports, wharves and industrial base.

The Agency Will		Timescale	Progress
10.1	Support Local Authorities and companies to grow and increase the competitiveness of the sustainable industrial base to secure employment opportunities.))))	The Agency has commented on the Regional Planning Guidelines, Yorkshire Forward's Regional Economic Strategy and Humber Trade Zone, and ABP's port development proposals. The Agency is represented on the Sustainability Commission of the Regional Chamber for Yorkshire and Humberside, which is developing a Regional Sustainability Plan including energy, transport, land use and environmental quality issues.
10.2	Support any move to promote a review of the transport infrastructure, including the development of short sea shipping, rail and inland waterways.))))	
10.3	Support any move to promote environmental best practice, adoption of the principles of sustainability and to engender an environmentally aware and responsible attitude in all sectors of industry and throughout companies workforce.	) ) Ongoing)))
10.4	Work closely with the Local Authorities and developers to ensure the right balance is struck between social, economic and environmental considerations in taking forward the concept of sustainable development.)))))	
10.5	Examine any proposals for development in line with our own strategy development and PPG20. Where appropriate we will also offer technical information derived through the development of the long term flood defence strategy.))))	

Key Issue 11

A framework is needed to guide recreational management of the Estuary and its environs, ensuring integration with other estuary interests.

The Agency Will	Timescale	Progress
11.1 Develop opportunities for improving facilities through collaborative projects with a number of partners.	) ) )	) ) The study of recreation and conservation) opportunities on the Agency's land was
11.2 Contribute to others proposals as appropriate through relevant consultation procedures.	) ) 1998) onwards	) completed in 1998. Funds and Partners are) being sought to progress these and other) opportunities.
11.3 Complete a study of the recreational opportunities which exist on Environment Agency owned land.	) ) )	) ) We are in particular working with North) Lincolnshire on the Barton Waterfront project and
11.4 Use this study to identify opportunities and constraints associated with all our sites and will contribute towards ensuring that the type and level of recreational use of an area is supported by the local community and is compatible with the environmental and economic interests.	) ) ) ) ) )	) also are involved with the HEMS Eco-tourism) proposal. Conservation and public information will) be developed for the managed retreat sites.))
11.5 Produce environmental action plans for all flood defence works which examine opportunities for recreation as well as conservation.	Ongoing	Plans are produced (see 5.5).
11.6 Explore external sources of funding.	Ongoing	External sources of funding including from Europe and the Lottery are being explored in a systematic manner.

Key Issue 12

We need to ensure the sustainability of current and future tourism on the Humber.

The Agency Will	Timescale	Progress
12.1 Work closely with Local Authorities and others to ensure our contribution to sensitive development of tourism.	Ongoing	Comments are made on proposals and planning applications. Involvement with the HEMS Eco-tourism project.

Key Issue 13

We need to improve education and establish information exchange initiatives based on the HEMS region, and to encourage research and development work on the many issues associated with estuary management.

The Agency Will	Timescale	Progress
13.1 Make environmental information more available by improving access to our Public Register. Additionally and specifically for the Humber, the Agency will produce a Humber State of the Environment Report by	1999	State of the Environment Report given wide circulation. Humber Estuary Environmental Baseline Study data will be made available to other organisations.
13.2 Publish other reports and information.	1998 onwards	Humber Action Plan given wide circulation along with HESMP reports. Technical reports from the HESMP Strategic Studies will be made available for education and research and opportunities will be sought to publish in journals and give conference papers.
13.3 Ensure the research community has a role in advising the Agency on its actions through the Humber Estuary Scientific Advisory Committee on the latest developments in the research world.	1997 onwards	The Humber Estuary Scientific Advisory Committee met twice yearly and discussed a range of topics, including the geomorphological studies, biodiversity, sea level rise and water quality processes. In 2000 HESAC was replaced by the Humber Estuary Seminar Series, with the first seminar being on "Valuing the Humber's Environmental Assets". The Agency has been closely involved with the Land Ocean Interaction Study (LOIS) through providing data and information, and assessing the research findings for the practical management of the Humber system.

APPENDIX

HUMBER URGENT WORKS COMPLETED, IN PROGRESS OR PLANNED TO START IN 2000/01

Previous Reference	Location	Grid Reference Upstream	Grid Reference Downstream	Region
UW1	Thorngumbald	TA 171 253	TA 189 236	North East
FD2	King George and Alexandra Dock	TA 110 284	TA 117 285	North East
FD1	Albert Dock	TA 080 271	TA 096 279	North East
-	Albert Dock, Lock Gates	TA 080 271	TA 096 279	North East
UW23	Welton Clough	SE 949 251	SE 951 249	North East
UW23	East Clough	SE 963 246	SE 976 248	North East
UW22	Brough Haven to Crabley Clough	SE 924 268	SE 929 267	North East
UW21	Laxton Clough to Bank House	SE 776 237	SE 796 238	North East
-	Victoria Lock Gates, Goole	SE 749 226	SE 749 234	North East
UW20	Goole Hall	SE 751 223	SE 767 221	North East
UW18	Reedness I	SE 799 232	SE 803 230	North East
-	Reedness II	SE 799 231	SE 814 228	North East
UW6	Ferriby Sluice	SE 972 213	SE 980 213	Anglian
UW15	SCM Jetty	TA 219 151	TA 223 148	Anglian
UW16	Oldfleet Drain	TA 239 132	TA 241 131	Anglian
UW17	Pyewipe	TA 244 127	TA 247 125	Anglian
-	Grimsby Dock	TA 273 108	TA 278 115	Anglian

APPENDIX (Cont.)

HUMBER FLOOD DEFENCE WORKS TO BE STARTED 2001/02 ONWARDS (AS AT OCTOBER 2000)

Reference	Previous Reference	Location	Grid Ref Upstream	Grid Ref Downstream	Region	Problem
High Priority						
UWC4b/01	-	Goole slip	SE 752 237	SE 753 238	North East	Condition (slip failure of defence)
UWC5/01	UW5	Winteringham Ings	SE 956 215	SE 959 213	Anglian	Erosion, condition
Medium Priority						
UWCS/01	-	Selby – left bank	SE 627 329	SE 620 324	North East	Standard of Service, erosion
UWCS/02	-	Selby – right bank	SE 617 328	SE 635 316	North East	Standard of Service
UWC4b/02	UW19	Swinefleet	SE 948 220	SE 950 219	Anglian	Condition
UWC5/02	UW5	Winteringham Grange	SE 766 220	SE 796 238	Anglian	Erosion, condition
UWC6/01	UW7	South Ferriby Cliff to Chowderness	SE 999 225	TA 002 228	Anglian	Erosion
UWC6/02	-	Barton Creek (both banks)	TA 029 227	TA 029 233	Anglian	Standard of Service, condition
UWC6/03	UW12	Halton Marshes	TA 159 210	TA 160 209	Anglian	Erosion
UWC7/01	UW14	Stallingborough North Beck	TA 218 152	TA 219 151	Anglian	Erosion
Low Priority						
UWC1/01	UW3	Kilnsea	TA 405 162	TA 409 158	North East	Standard of Service, erosion
UWC1/02	UW2	Welwick Bank	TA 334 192	TA 343 191	North East	Condition
UWC2/01	-	Paull Village	TA 165 266	TA 167 260	North East	Standard of Service
UWC2/02	-	East of Hessle Haven	TA 034 258	TA 063 265	North East	Standard of Service, erosion
UWC2/03	-	Hessle Haven to Humber Bridge	TA 028 254	TA 035 256	North East	Erosion
UWC3/01	UW24	North Ferriby	SE 967 246	SE 986 252	North East	Erosion
UWC4a/02	-	Kilpin Pike	SE 757 268	SE 761 265	North East	Condition
UWC4c/01	UW26	Boskeydyke Drain	SE 837 125	SE 842 132	Midlands	Condition
UWC4d/01	-	Alkborough (Trent)	SE 870 211	SE 867 220	Midlands	Erosion
UWC4d/02	-	Alkborough (Humber)	SE 875 235	SE 878 236	Midlands	Erosion
UWC4d/03	-	Devil's Causeway	SE 888 240	SE 894 243	Midlands	Erosion, condition
UWC5/03	UW4	Whitton Ness (u/s)	SE 918 251	SE 919 251	Anglian	Erosion
UWC5/04	UW4	Whitton Ness (d/s)	SE 921 548	SE 922 246	Anglian	Erosion
UWC6/04	UW8	Barrow Haven (Humber)	TA 054 236	TA 061 238	Anglian	Standard of Service
UWC6/05	UW12	East Halton Skitter	TA 149 227	TA 151 225	Anglian	Erosion