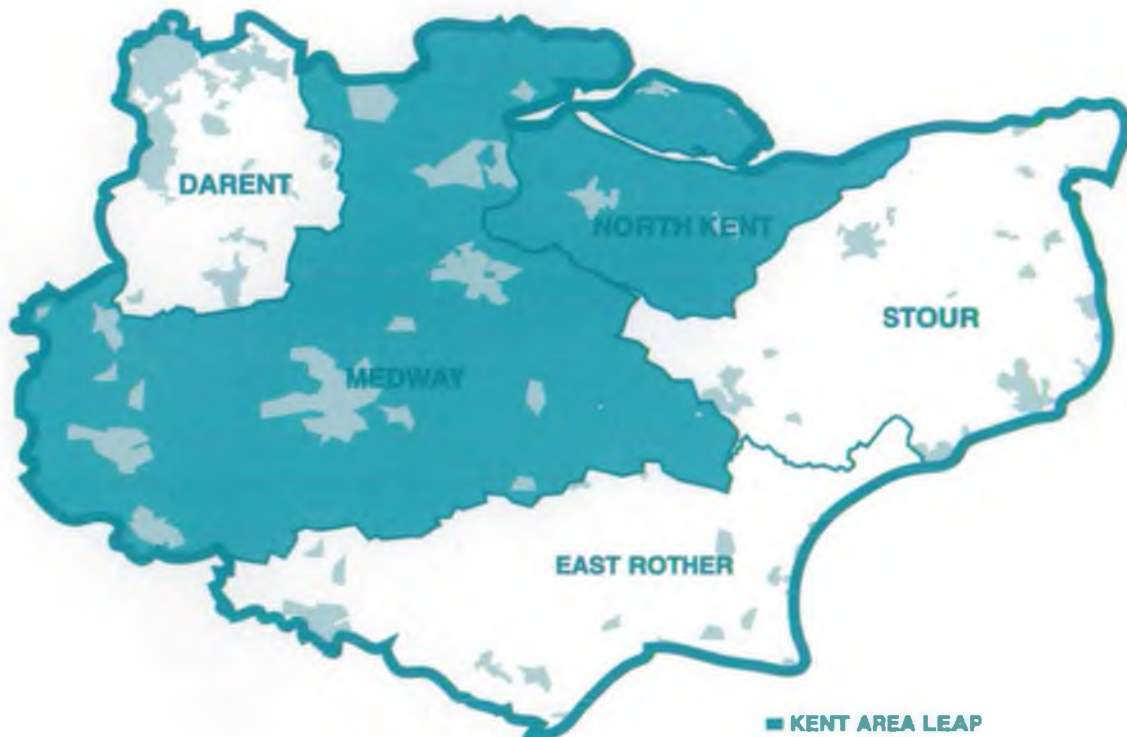


Box 2

local

environment agency plan

KENT AREA ANNUAL REVIEW MAY 2000



ENVIRONMENT
AGENCY



DDC

ENVIRONMENT AGENCY

Information Services Unit

Please return or renew this item by the due date

Due Date

20/02/07

SOUTHERN REGION

Golden Square House, Greatworth Road,
Woking, West Sussex GU24 0LF

ENVIRONMENT AGENCY



070539

EXECUTIVE SUMMARY

This Kent Local Environment Agency Plan (LEAP) Annual Review reports on the progress made in the first year against actions to address issues detailed in the Kent Area, Medway and North Kent LEAP Action Plans. The delivery of these actions demonstrates the contribution the Environment Agency and its partners are making towards sustainable development.

The various Kent LEAPs set far-reaching and ambitious targets for the Kent area and its catchments with the aim of bringing about real and measurable environmental improvements to address issues of significance within the Kent area. Despite the ambitious nature of these targets, excellent progress has been made against many actions through the work of Environment Agency staff and partner organisations. Actions have been progressed and in many instances completed, despite an increase in responsibilities faced by the Environment Agency and limited resources.

Significant achievements made last year include:

- incorporation into Asset Management Plan (AMP) III of water company commitments to the Rivers Little Stour and Darent (Phase II) Low Flow Action Plans;
- voluntary surrender of the first water abstraction licence at Eastry by Southern Water after research showed borehole development would have adverse effects on local designated sites;
- completion and approval of Area Water Company Drought Contingency Plans;
- receipt of an award by the Kent area for two national research and development projects on crayfish and wolverines; part of the Agency's contribution to the Kent Biodiversity Action Plan;
- increased numbers of migratory fish species found in the rivers Stour and Medway as a result of water quality improvements;
- successful launch and implementation of the Floodline, the Agency's new flood information line followed by successful crisis management of the flood event over the Christmas 1999/2000 period;
- the rebuilding of Allington Lock; and
- achievement of the appropriate level of Certificate of Technical Competence certification for all targeted waste sites within the Kent area.

All this and much more has been achieved despite a number of costly groundwater and contaminated land remediation projects, a high level of pollution incidents and limited Agency resources. Of the 148 actions detailed within the Kent Area, Medway and North Kent LEAP Action Plans, 11 actions have been delivered in their entirety and progress has been made against 122 other actions (with 29 of these being ahead of schedule). No progress has yet to be made against 15 actions, although no progress was planned for 14 of these 15 actions until at least 2000/2001.

The achievements made over the last year which is the first year of delivery of many of the LEAP Action Plans, are testimony to the value of collaborative working between the Agency and partner organisations together with the dedication of the Agency to improving the local environment for present and future generations.

The Environment Agency looks forward to working in partnership with other organisations over the next four years to progress delivery of the Kent area's LEAP actions, bringing about improvements to the environment of Kent.

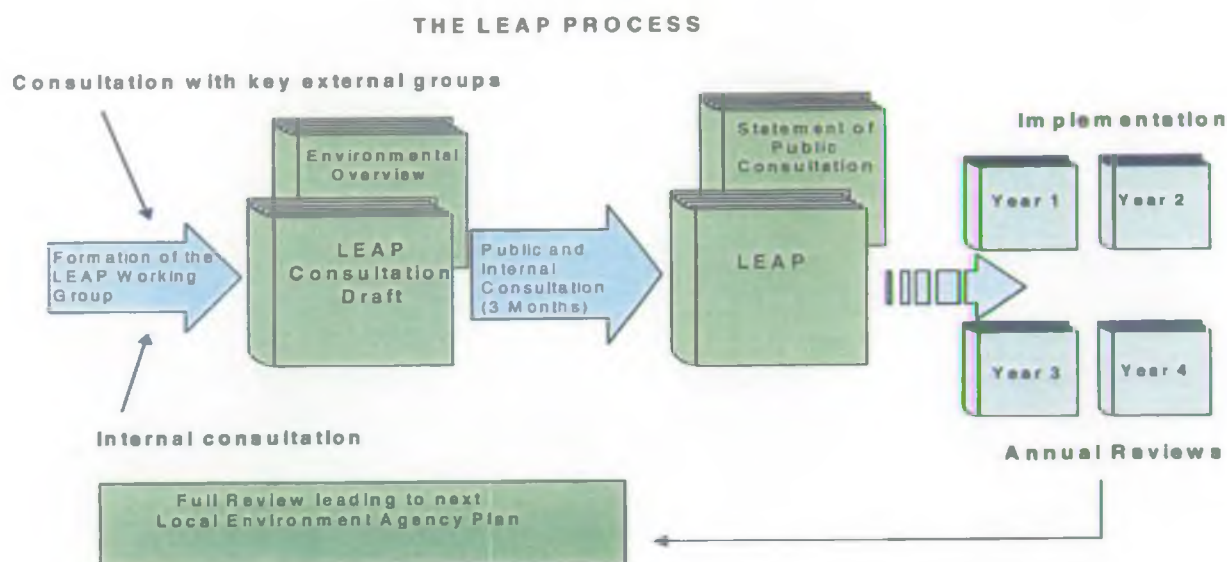
CONTENTS

	Page No
1.0 Introduction	1
1.1 The Annual Review Process	1
1.2 Sustainable Development	2
1.3 Main Impacts of New Responsibilities	2
2.0 New Pressures	2
2.1 Housing Allocations	2
2.2 Climate Change	3
2.3 Regionalisation	3
2.4 Contaminated Land Regulations	3
3.0 Key Achievements and Disappointments	4
3.1 Achievements	4
3.2 Disappointments	5
4.0 Update of the Action Plan	6
4.1 The Action Table	6
4.2 Key to the Action Table	6
4.3 Environmental Strategy	7
4.4 List of Issues	8
4.5 Future Review and Monitoring	10
ACTION TABLES	11
APPENDIX 1 Kent Area Leap Publication Timetable	72
APPENDIX 2 Abbreviations	73
APPENDIX 3 Glossary	75

1.0 INTRODUCTION

1.1 THE ANNUAL REVIEW PROCESS

This is the first Annual Review of the Local Environment Agency Plans (LEAPs) published in the Agency's Kent area. These integrated environmental management plans have been produced to help us identify, assess, prioritise and solve local environmental issues related to our functions, taking account the views of our local customers. The LEAP process involves several stages, as illustrated below. These plans set out proposed action for the Agency and partners to deliver over a five year period.



The Agency now has complete coverage of all 13 Consultation Drafts for the Southern Region. In the Kent area, 4 Consultation Drafts have so far been converted into Action Plans and the Kentish Stour and Darent Action Plans will shortly be published (Appendix 1 shows the Kent Area LEAP publication timetable).

The majority of the actions highlighted in these plans not surprisingly require funds for implementation. The Agency has to determine this resource requirement alongside other national and regional priorities, which is carried out through the annual business planning process. In order to link the two plans more effectively a decision has been made to review all LEAPs in the Southern Region at the same time to coincide with the business planning cycle. Some of the LEAPs have only just been published so there will be little progress to report this year however, there will be a full progress report on the full suite of area LEAPs in the following year, including the Stour, Darent and Rother catchments.

In summary, the Annual Review process enables the Agency to assess progress on a regular basis and incorporate changing local and national priorities as necessary. This document is a combined review of the Action plans which have been in place for a significant part of the year, namely the Kent Area, Medway and North Kent LEAPs. The document also provides a forward look for these Action Plans, including any changes and new actions.

1.2 SUSTAINABLE DEVELOPMENT

Efforts to improve quality of life have resulted in environmental challenges. As the climate changes and air pollution increases, it is evident that much greater care must be taken if we are to avoid paying the heavy price of living beyond our environmental means.

Sustainable development, in simple terms, is development which balances three issues: people, profit and the planet. It is based on the idea that people's lives, and the state of our communities, is affected by a combination of economic, social and environmental factors. By understanding the links between them we can develop lasting solutions.

At a strategic level a regional Sustainable Development Framework is currently being drafted for the South East, which is due to be published by the end of the year. It will be consistent with the UK strategy for sustainable development and is intended to be a simple, accessible and inclusive framework which sets out the context for achievement of sustainable development in the South East of England. At a local level, LEAPs will aid the achievement of sustainable development by helping to develop solutions, based on harmony between the economy, society and the environment.

1.3 MAIN IMPACTS OF NEW RESPONSIBILITIES

The Agency continues to face pressures on its resources from new responsibilities including the Habitats Directive, Integrated Pollution Prevention and Control (IPPC) and Control of Major Accident Hazard (COMAH) Regulations, Asset Management Plan, Round 3 (AMP III) consents review and the Water Framework Directive. The Agency remains committed to recycling efficiencies to offset the costs of carrying out new work to improve the environment. However, the pace and size of change may far outstrip our capacity to do this. Although there will be additional resources to cover some of these additional responsibilities, there will still be some impact on other areas of work highlighting the increasing importance of adopting the partnership approach in performing our environmental improvement work.

The Agency realises that a more proactive and co-ordinated approach to securing external funds is necessary in helping deliver outcomes. Thus, an area external funding officer has been appointed to help identify high priority activities which present the best opportunities for generating external funds and improving value for money.

2.0 NEW PRESSURES

2.1 HOUSING ALLOCATIONS

In addition to new legislative pressures and responsibilities faced by the Agency, the Kent area of the Environment Agency is likely to be significantly effected by development pressures planned for the South East of England. Significant numbers of new houses have been identified in allocations for the Kent area, made by the Secretary of State.

The areas most affected will be north Kent and the Ashford area, both of which are to receive significant housing allocations. This planned growth in the provision of housing will have an impact on the environment and may have significant impacts on water resources; water quality, flood plain storage, biodiversity and landscape.

2.2 CLIMATE CHANGE

The recent report "Rising to the Challenge: Impacts of Climate Change in the South East in the 21st Century", jointly funded by the Agency and its stakeholders, has confirmed the forecasts by the Climate Change Review Group. The forecasts are that the South East will become progressively drier with lower summer rainfall totals and higher evaporative loss rates. Although winter rainfall is expected to increase, the corresponding gains to groundwater storage and river flow are unlikely to compensate for the high deficits accumulated during the summer months. There is therefore concern for those areas of high demand where sources of supply are already under stress, a run of deficit years could lead to the 'mining' of water resources. The pressure for development in the South East may compound this issue in areas where supply sources are already under stress.

Another key aspect of climate change is the rise in sea levels. The South East of England is particularly vulnerable to this because of the downwards tilt of the country, resulting from the glacial recession that occurred at the end of the ice age, which compounds the effects of global warming. Allowances are already made in the design of sea defences to accommodate the estimated rise in sea levels over the design life of the defence. The increase in storminess will cause greater damage from wave action on the defences and the increased rainfall patterns in the winters will increase the frequency of fluvial flooding. The programme of flood risk mapping will improve the knowledge of areas at risk of flooding.

2.3 REGIONALISATION

The new Regional Development Agencies (RDAs) came into operation on 1 April 1999. Their primary role is to improve the prosperity of the English Regions. The South East of England Development Agency (SEEDA) is the RDA for the South East Region which includes Kent Area of the Environment Agency. RDAs have responsibility to promote sustainable economic development and social and physical regeneration. As the Government Agency whose principal aim is to make a contribution towards achieving sustainable development then clearly, the Environment Agency has a role to play as one of the partners in working with RDAs.

2.4 CONTAMINATED LAND REGULATIONS

The new contaminated land regime finally came into force in England on 1 April 2000, under Part IIA of the Environmental Protection Act 1990, inserted by section 57 of the Environment Act 1995. Local authorities are the lead regulator of Part IIA in England and Wales, however, the Agency has specific duties. These duties include the provision of information, consultation on local authority inspection strategies, enforcement of remediation of "special sites", provision of site-specific advice to local authorities on matters of water pollution (and other matters where it has specific expertise) and preparation of 'State of Contaminated Land' reports.

The purpose of the regime is to deal with the legacy of contaminated land that has arisen from a wide range of industrial, mining and waste disposal activities. It is intended to be complimentary to the planning regime, with the expectation that most contaminated land will still be dealt with using planning conditions or legal agreements set as part of the redevelopment process. Part IIA allows local authorities and the Agency to deal proactively with land which is posing unacceptable risk to humans, controlled waters or the wider environment, where land is not being actively redeveloped.

The Agency's Groundwater and Contaminated Land project is well advanced in the recruitment and training of technically competent staff and production of appropriate procedural documents, guidance and communication tools. For example, the Agency, with support from the Chartered Institute of Environmental Health (CIEH) and the Local Government Association (LGA), has secured funding from the DETR to design and provide procedural training for local authorities.

For developers, the start of the regime will help to remove the uncertainty from land purchase, redevelopment and subsequent resale to funding institutions. Many companies in those industries with a legacy of land contamination have been planning programmes for dealing with potential sites and now wish to begin discussions with regulators in earnest. These new regulations are likely to have a significant impact on the future work and workload of the Agency.

3.0 KEY ACHIEVEMENTS AND DISAPPOINTMENTS

3.1 KEY ACHIEVEMENTS

The tables in section 4 provide details of progress made against the actions within the Kent Area, Medway and North Kent LEAPs. Here, some of the key achievements taking place within the area over the period of the last year are highlighted, together with disappointments that may have had an impact on effective delivery of LEAP actions by placing strains on resources.

- Successful launch and implementation of Floodline (0845 988 1188), the Agency's new flood information line shortly followed by successful crisis management of flood event over Christmas 1999/2000 holiday period.
- Water Company Drought Contingency Plans have been finalised and approved for the area.
- Kent awarded two national R&D Projects on crayfish and water voles worth over £70k over the next 3 years as part of its contribution to the Kent Biodiversity Action Plan (BAP).
- Migratory fish species reported to be present in rivers Stour and Medway in greater numbers than normal following significant water quality improvements. A small spring salmon has also been found in the River Dour.
- Water company commitments to the Rivers Little Stour and Darent (Phase II) Low Flow Action Plans have been incorporated into AMP III.
- Voluntary surrender of first water abstraction licence at Eastry by Southern Water to the Environment Agency. The licence was for Eastry borehole near Sandwich, an abstraction that was once marked for commissioning as a key public water supply. After extensive research Southern Water discovered that developing the borehole would have had serious adverse effects on Sandwich Bay and Hacklinge Marshes, designated wildlife sites that rely on the movement of Groundwater from Eastry.
- The Certificate of Technical Competence (COTC) project has been successfully completed with all targeted waste sites having achieved appropriate Waste Management Industry Training

Advisory Board (WAMITAB) certification status of a level that meets national environmental requirement.

- Reduction in Channel Tunnel Rail Link (CTRL) pollution incidents (despite heavy rain during December) following an Agency meeting with Union Rail executives.
- Refusal of local planning authority to grant planning permission to a site in Dartford to which the Agency had objected to on the grounds of loss of water vole habitat. This is believed to be the first refusal of this kind in the country.
- 200 scrap sites now registered following major campaign to address lack of registration.
- Completion of rebuilding of Allington Lock at a cost of £900,000.
- Five successful prosecutions brought by the Agency resulting in £43.5k of fines and over £21k of costs. This included the highest known fine for sewage pollution of £25k against Thames Water.
- The Rye partnership, of which the Agency is a partner, has obtained a reversal of a ministerial decision to allow a grant application for the Harbour of Rye Fish Market. This could potentially enable a grant of up to £700,000 to be obtained.

3.2 DISAPPOINTMENTS

- Resource limitations have required a redirection of effort towards new duties rather than towards some of the LEAP actions. This has been compounded by a high level of pollution incidents.
- Two contaminated land remediation programmes to clean up the contamination at Cryall's Lane, Sittingbourne and Rye Harbour Road are taking longer to resolve than anticipated due to the complexities of the issues involved.
- There have been a number of groundwater pollution incidents that have resulted in extensive and costly remediation. These pollution incidents have resulted from inadequate storage facilities of hydrocarbons.

4.0 UPDATE OF THE ACTION PLAN

4.1 THE ACTION TABLE

The Agency is continually working towards resolving the issues within LEAPs. The following action table provides information on the forward look and progress that has been made in the last year on the issues identified in the Kent Area, Medway and North Kent Action Plans. For a fuller account of the issues please refer to the relevant Action Plans.

Opportunities have arisen during the course of the year for new work to start or to be planned so as to start in the current financial year. Such new actions to address issues within the plan are clearly highlighted. Some actions will also have progressed to another phase and the wording will have been changed to indicate this.

There are some actions that we will be either removing from the plan, amending or deferring until a later date, a clear explanation will be given for these changes.

4.2 KEY TO THE TABLE

The tables on page 10 and subsequent pages provide detail of the progress made against actions for each issue detailed within the Kent Area, Medway and North Kent LEAPs. Activities that have been completed during the previous financial year (1999-2000) are shaded in the tables. Although the plan period is for five years, because of the short-term nature of our funding, we can only firmly commit ourselves to action in the current year, and in some instances, in the following financial year.

An explanation of the symbols shown in the columns of the tables is given below:

*	Action in year indicated
MP	Manpower – no additional cost to annual budgetary provision
U	Unknown cost at this time
k	£1,000
m	£1,000,000

Environment Agency Departments

CS	Customer Services
EPI	Environmental Planning
EPR	Environmental Protection
FD	Flood Defence
FER	Fisheries, Ecology and Recreation
WR	Water Resources

Responsibility

AM	Area Manager
AMT	Area Management Team
TL	Team Leader
O	Officer

4.3 ENVIRONMENTAL STRATEGY

We recognise that environmental problems are interrelated and need to be dealt with in a holistic manner. Our document "Environmental Strategy for the Millennium and Beyond" (Sept 1997) adopted an integrated approach to understanding, managing regulating and improving the quality of air, land and water by introducing nine themes as shown below. Each action has been cross referenced to between one and three of these environmental themes by using the appropriate symbols within the table.



Addressing climate change



Improving air quality



Managing our water resources



Enhancing biodiversity



Managing freshwater fisheries



Delivering integrated river-basin management



Conserving the land



Managing waste



Regulating major industries

4.4 LIST OF ISSUES

Kent Area LEAP Issues

Kent Area Issue 1	Standard of flood and coastal defences will not be adequate for predicted effects of climate change
Kent Area Issue 2	Sustainable water resources management and the effects of climate change
Kent Area Issue 3	Need for increased knowledge of impacts of Agency regulated industrial releases on air quality
Kent Area Issue 4	Deterioration in the balance of water resources
Kent Area Issue 5	Forecast demand – growth; impact on the overall balance of public supplies
Kent Area Issue 6	Protection and enhancement of biodiversity
Kent Area Issue 7	Illegal movement of freshwater fish through Kent
Kent Area Issue 8	Protection and enhancement of important wetlands
Kent Area Issue 9	Declining flows in Kent area rivers
Kent Area Issue 10	Reduction in river baseflow producing a loss of dilution capacity
Kent Area Issue 11	Deterioration in the condition of land drainage.
Kent Area Issue 12	Water quality improvements
Kent Area Issue 13	Improving bathing beaches
Kent Area Issue 14	Coastal oil pollution
Kent Area Issue 15	Increased managed access to the water environment for recreation
Kent Area Issue 16	Protection of archaeological heritage
Kent Area Issue 17	Pollution prevention
Kent Area Issue 18	Lack of knowledge of significant environmental issues in Kent area
Kent Area Issue 19	Development pressures and sustainable surface water management
Kent Area Issue 20	Maintenance of existing flood defences
Kent Area Issue 21	Development pressures on environmental resources
Kent Area Issue 22	Contaminated land to be made suitable for development use
Kent Area Issue 23	Environmental impact of the Channel Tunnel Rail Link (CTRL)
Kent Area Issue 24	Sustainable waste management
Kent Area Issue 25	Waste management facilities
Kent Area Issue 26	Sites claiming exemption from waste management licensing
Kent Area Issue 27	Pollution from the metal recycling (scrap) industry
Kent Area Issue 28	Land application of sewage sludge
Kent Area Issue 29	Danger of contamination of water for drinking water
Kent Area Issue 30	Sustainable management of landfill gas
Kent Area Issue 31	Risk of illegal waste disposal (fly-tipping)

Medway LEAP Issues

Medway Issue 1	Flood defence provision & operation in the Medway catchment needs to be reviewed to address the increased flood risk due to the predicted effects of climate change
Medway Issue 2	Impact of predicted climate change effects on water management in the Medway catchment
Medway Issue 3	Implications of the water resource supply and demand management strategy in the South East Region
Medway Issue 4	Effect on water resources of Blue Circle Industries moving cement works from Northfleet
Medway Issue 5	How to enhance biodiversity in the Medway catchment
Medway Issue 6	Spread of invasive species

Medway Issue 7	There are barriers to the movement of fish on the Medway
Medway Issue 8	Sustainable fisheries management
Medway Issue 9	Increased incidence of river bank erosion and associated siltation
Medway Issue 10	Redevelopment of older waterside areas to maximise the use of the land
Medway Issue 11	Protection of river flows in River Beult
Medway Issue 12	Need to improve our understanding of flow and water quality in the Medway estuary
Medway Issue 13	Adverse impacts of flood defence operations on habitats and fisheries
Medway Issue 14	Protection and enhancement of wetland and riverine habitats
Medway Issue 15	Non-compliance with EU standards and Agency objectives for water quality
Medway Issue 16	Intermittent pollution of surface and ground waters
Medway Issue 17	Managing access to water for recreation in the Medway catchment
Medway Issue 18	Redevelopment of industrial areas needs to ensure that any contaminated land is appropriately remediated
Medway Issue 19	Extraction of minerals may create environmental impacts within the catchments
Medway Issue 20	Spreading of paper sludge wastes on agricultural land
Medway Issue 21	Waste management options for the Medway catchment
Medway Issue 22	Raising public awareness of environmental issues

North Kent LEAP Issues

North Kent Issue 1	Additional data is required to assess the cumulative effects of certain emissions from industrial processes and other sources both within and outside the area
North Kent Issue 2	Historic development of groundwater has resulted in general deterioration in the balance of water resources by the depletion of spring fed chalk streams and increased stress on wetland habitats
North Kent Issue 3	The balance in area of intertidal habitats such as saltmarsh and mudflats in the Medway Estuary and Swale is changing as a consequence of a number of stresses
North Kent Issue 4	How to promote water related recreation that is compatible with other uses
North Kent Issue 5	Conserving and enhancing water related habitats and landscapes
North Kent Issue 6	Protection and enhancement of biodiversity
North Kent Issue 7	Implementation of Agency responsibilities under the Habitats Directive & Habitats Regulations
North Kent Issue 8	How the Agency implements its role in managing the fishery in the Medway Estuary
North Kent Issue 9	Impacts of water quality improvements and elevated water temperatures from industrial discharges on the productivity and nature conservation value of the Medway Estuary and Swale are unknown
North Kent Issue 10	The physical processes operating in and around the Medway Estuary and the Swale are not fully understood or agreed. This reduces the Agency's ability to carry out its flood defence and conservation activities effectively
North Kent Issue 11	The requirement for additional sewerage capacity in the future is likely to highlight current problems with combined sewer overflows
North Kent Issue 12	There is currently a lack of data on the location and extent of contaminated land
North Kent Issue 13	Sustainable waste management
North Kent Issue 14	The environmental impact of land application of paper sludge

4.5 FUTURE REVIEW AND MONITORING

Regular monitoring and updating of the issues and actions are an integral part of the LEAPs process. The Agency will continue to monitor progress and report back annually to all interested parties. A full review will normally be undertaken after five years.

If you require further information about LEAPs in this area or wish to discuss partnership opportunities please contact:





Customer Contact Team
Customer Services
Environment Agency
Orchard House
Endeavour Park
London Road
Addington
West Malling
Kent ME19 5SH

Telephone: 01732 875587
Fax: 01732 875057

Web-site: www.environment-agency.gov.uk



KENT ISSUE 1: Standard of flood and coastal defences will not be adequate for predicted effects of climate change

Possible effects resulting from climate change may be particularly exacerbated in the Kent area due to land sinking and this will have implications for flood defence provision and budgeting to ensure existing development is secure. New development must not exacerbate the situation due to inappropriate location.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
1.1  	Produce Coastal and Fluvial Strategy Plans, and implement identified actions through the capital works programme, to ensure effective flood defence systems are provided to an appropriate standard for current and future areas at risk from flooding.	Flood Defence Manager IDBs, EH, LAs, landowners	£5m	£228k	£89k	£203k	£123k		Early strategies are meeting with difficulties in achieving MAFF agreement. Lessons learnt are being applied to current strategies, which are progressing well.
1.2  	Work to secure strong floodplain protection policies in all development plans and work with local planning authorities to generally guide development away from areas at risk to flooding.	Team Leader Development Control LAs	£25k	£5k	£5k	£5k	£5k	£5k	<p>Agency has been successful in year 1999/2000 in raising flood awareness through the Kent area, despite lack of serious flood events recently in the area.</p> <p>Strong floodplain protection measures have been negotiated with the following Local Planning Authorities: Dartford BC, Dover DC, Rother DC and Shepway DC. It is hoped that these protection measures will be incorporated into their local plans.</p> <p>Extensive discussions on flooding issues have taken place with the following LPAs: Ashford BC, Maidstone BC, Tonbridge & Malling BC.</p> <p>Kent area has strengthened its approach to guiding development away from areas considered at risk to flooding. Where consulted as part of the planning process, the Agency now generally objects to development considered inappropriate, as opposed to in the past when we would advise LPA's of the flood risk and rely on them to resist development. Agency is also prepared to support objections through planning appeals. The Agency has made representations at two planning appeals in support of LPA's during year 1999/2000.</p>







KENT ISSUE 2: Sustainable water resources management and the effects of climate change

A legacy of over abstraction has created an adverse balance of water resources. The Agency is working with partners in the South East Group to develop a 30 year strategy. There is also a growing need for a Kent area strategy, which should promote implementation of the South East strategy and review and update Kent policy.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
2.1  	Address predicted climate change impact with a coherent long-term Area Water Resources Management Strategy (derived from the Regional Strategy) and incorporating an effective Drought Contingency Plan.	Water Resources Manager Water companies, OFWAT, LAs, EN, RSPB, conservation groups.	MP	MP	MP	MP	MP	MP	<p>Data review in progress with the objective of identifying significant climate trends in the Kent area catchments.</p> <p>Climate change scenarios to be adopted in the Southern Region Water Resource Management Strategy and the Kent Catchment Abstraction Management Strategies (CAMS).</p> <p>An Area Drought Plan has been completed and the Regional Drought Management Plan is currently in its final draught form.</p> <p>There is no capital spend commitment to this action.</p>



KENT ISSUE 3: Need for increased knowledge of impacts of Agency regulated industrial releases on air quality

The Agency's role in local air quality management is liaison, support, technical consultation and provision of data relating to Part A IPC processes. The Agency is involved in partnerships with Kent and Sussex County Councils to promote co-operation and co-ordinated action on air quality issues. For future IPC applications air dispersion modelling will allow improved understanding of Agency regulated releases to the air.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
3.1  	Develop a set of practical computer modelling options which the Agency can use to identify, evaluate and regulate the impact of Part A processes in relation to the attainment of National Air Quality objectives in the South East (SEAMP).	Team Leader PIR/RSR Kent Air Quality Management Partnership, Process Industries.	£50k	£50k					South East Air Modelling Project (SEAMP) completed and includes modelling options. It has provided a "pilot" for a larger Thames Estuary wide project, led by the Thames Region, which is now up and running.
3.2  	Take account of National Air Quality Objectives and Local Authority Review and Assessment conclusions in particular designation of Air Quality Management Areas, when setting emission limits for Part A IPC authorised processes.	Team Leader PIR/RSR Kent Air Quality Management Partnership, Process Industries, LAs.	U	£5k	£3k	U	U	U	National Air Quality Strategy (and revised United Kingdom Air Quality Strategy) have been considered in the determination process. DETR have extended the deadline for Local Authority review and assessments, consequently there are no Air Quality Management Areas designated as yet.
3.3  	Enhance the application of air dispersion modelling to determination procedure for selected IPC authorisations.	Team Leader PIR/RSR Kent Air Quality Management Partnership, Process Industries.	£25k	£25k					An Air Quality Dispersion Modeller has been appointed to the Regional PIR team to provide service and support for the area teams. Dispersion modelling hardware and software is now available in the Kent area office. Further staff training in dispersion modelling has been completed.



KENT ISSUE 4: Deterioration in the balance of water resources

The deterioration in the balance of water resources is a legacy of historic water resource development in response to increasing public supply demand leading to depleted river flows and lower water tables. For 6 of the 18 water resource areas abstraction represents at least 75% of the annual renewable resource leaving an unsustainable environmental balance.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
4.1  	To redress the existing adverse balance of resources by negotiated licence variations or revocations coupled with actions under the Agency's National Environment Programme incorporating UK and European legislation.	Water Resources Manager Licence holders, OFWAT, EN.	MP	MP	MP	MP	MP	MP	The water resource balances are to be updated as the basis for the Kent CAMS. Estimates for the first catchment assessment are expected in late 2000/2001- early 2001/2002. A review of existing public water supply authorisations is in progress. There is no capital spend commitment for this action.


KENT ISSUE 5: Forecast demand-growth; impact on the overall balance of public supplies








Forecasts for the majority of Kent area based water companies indicate growth in average/day demand of approximately 1% per annum up to 2021. There are likely to be few options for the development of indigenous resources that would not impose unacceptable stress on the environment. The Agency's role includes promotion of the most environmentally cost-effective options which in the first instance will come from schemes identified by the South East Regional Strategy Group.






No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
5.1  	Contribute to the formulation of a Southern Region Water Resource Management Strategy and develop a derived Strategy for the Kent area, which takes into account local pressures and priorities.	Water Resources Manager Water companies, LAs, DETR.	£25k	MP	£5k	£5k	£10k	£5k	Priority options for the most environmentally cost-effective development will be identified in the Southern Region Water Resource Management Strategy due for publication in December 2000. A review of climate trends is in progress.








KENT ISSUE 6: Protection and enhancement of biodiversity

The Agency's national policy is to prioritise the implementation of the UK BAP commitments. Actions applying to several LEAP areas have been identified in the Kent LEAP while more local activities are identified in individual catchment LEAPs.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
6.1 	Contribute to the achievement of the Agency's UK BAP commitments, including being the national contact within the Agency for Shining Rams-Horn Snail and Marsh Warbler.	Team Leader Conservation and Recreation & Team Leader Biology EN, KWT, RSPB, CMPs, FWAG, landowners, farmers, IDBs, water companies, LAs, universities, volunteers.	£150k	£20k	£20k	U	U	U	<p>Survey of Shining Rams-Horn Snails at Ash Levels and Stodmarsh undertaken in 1999 (originally undertaken in 1996) to ascertain whether population changes had occurred. Population shown to be reasonably static but reliant on appropriate land-use and management. Project jointly funded by English Nature and the Agency. Report produced and available.</p> <p>PhD research studentship looking primarily at the snail's ecology and offering resultant management advice is on-going with one year of the studentship remaining. No additional funding resources available beyond this research. PhD jointly funded by NERC and Agency.</p> <p>Agency contributed to National return to Government on Marsh Warbler.</p> <p>Agency has taken lead in Kent on water voles including support for a baseline study of Romney Marsh. Otter and crayfish survey work also being undertaken around the area.</p>



No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
6.2 	Contribute to the review of the County of Kent BAP and support preparation and review of the Sussex and Surrey BAPs as relevant to Kent area.	Team Leader Conservation and Recreation County Wildlife Trusts, EN, RSPB, NFU, CLA, MAFF, IDBs.	£10k	£4k	£1.5k	£1.5k	£1.5k	£1.5k	An Agency representative sits on the Kent BAP Steering, Information and Monitoring Groups. A report of the Agency's actions has been completed. Information on relevant species and habitats sent to Surrey and Sussex BAP co-ordinators.
6.3  	Continue to monitor the biodiversity of rivers in Kent area through a rolling programme of River Corridor Surveys and River Habitat Surveys and report on the findings	Conservation and Recreation Officer CMPs, landowners, IDBs.	£56.5k	£13k	£13k	£10k	£10k	£10k	Monitoring of the Darent and Stour catchments was completed in 1999/2000. Comparative study with earlier survey was undertaken to assess changes. Riparian mammal surveys are now required as standard, thus fulfilling Water Vole BAP requirements.
6.4  	With the involvement and support of all interest individuals and parties, prepare and implement catchment BAPs to promote a co-ordinated and prioritised approach to the management of wetland habitats and species throughout Kent area.	Team Leader Conservation and Recreation Landowners, LAs, LPAs, FRCA, MAFF, EN, KWT, RSPB, Angling societies, SEORP, SWS, IDBs, CA.	£50k	£2k	£10k	U	U	U	The Freshwater BAP meeting was held at the Agency's Kent area office. Teise catchment identified for pilot BAP in 2000/2001.
6.5  	Survey headwater streams and investigate opportunities for protecting and enhancing their faunal richness.	Team Leader Conservation and Recreation Landowners, farmers, CMPs, KWT, SWS.	£20k	-	£7k	U	U		Water vole survey of headwater streams is planned for 2000/2001. No invertebrate surveys possible due to other priorities in 2000/2001.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
6.6  	Initiate a three year Research and Development programme to investigate the response of both native crayfish and water voles to habitat management techniques.	Conservation and Recreation Officer Landowners, universities, CMPs.	£77.5k	£2.5k	£15k	£30k	£30k		Project plans have been prepared. Detailed tender packs and collaborative partnership agreements are being prepared. Project funded by Head Office. Project Board for Crayfish R & D has been established. Literature Search Specification has been drafted.
6.7 	Continue to support Countryside Management projects and a FWAG officer, both financially and through representation on steering groups as a way of securing BAP actions on the ground.	Team Leader Conservation and Recreation & Fisheries Scientist CMPs, FWAG, LAs, EN, industry, NFU, FRCA, MAFF, landowners, farmers, SEORP, CA.	£320k	£80k	£80k	U	*	*	Agency is represented on Steering Groups for six Countryside Projects and the FWAG High Weald Advisory Group. Agency attendance at project steering groups is providing direction and positive targeting. Target setting and monitoring is in place and funding is under review. Additional habitat monies have been directed at three projects from the Fisheries budgets in partnership with two new funding partners.
6.8  	Improve the biodiversity along watercourses and defences maintained by the Agency through more sensitive flood defence management and with the support of the Local Flood Defence Committee implement habitat enhancements and restoration of degraded habitats.	Conservation and Recreation Officer & Flood Defence Manager Landowners, FRCA, CMPs, KWT, Angling societies, SEORP, LFDC, IDBs.	£540k	£26k	£85k	U	*	*	Study into the use of temporary in-stream structures completed, identifying management options. Joint ventures with Flood Defence Enhancement Officer/Direct Workforce and Countryside Projects being undertaken to implement these improvements. Reorganisation of Agency Conservation and Recreation department resulted in Lead Officer for Flood Defence Liaison. Wider promotion of sensitive management has been achieved through better communication, tool box talks and attendance of Partnership Board. There is a new demonstration stretch on the Little Stour. Flood Defence Enhancement Officer appointed and implemented series of small scale habitat works and two large schemes on the Darent and Rother.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
6.9 	Develop a close working relationship with LPAs to ensure that local plans and decisions on planning applications take appropriate account of the Agency's Biodiversity responsibilities.	Team Leader Conservation and Recreation & Team Leader Planning Liaison LAs, EN, KWT.	£12k	£5k	£2k	U	U	U	Progress made via on-going consultations with LAs. Meeting undertaken between the Agency's Conservation function and KCC, EN and KWT. Agency involved in two major relevant planning application appeals during the year, one upheld one not upheld. Water Vole Conservation Handbook sent to all LPAs in Kent area.
6.10  	Seek opportunities to support local biodiversity projects related to the water environment through partnerships.	Team Leader Conservation and Recreation Parish councils, landowners, RSPB, CMPs, KWT, SWS, IDBs, schools, water companies, CA.	£80k	£6k	£12k	U	*	*	Supported production of North Kent Marshes Breeding Wader Report but budgetary constraints may affect ability to deliver this action. Agency structures have been selectively targeted for bat box installation in 2000/2001. A number of barn owl boxes have been installed and the River Tillingham has been targeted with three more suitable sites.
6.11  	Manage Agency land holdings to enhance their biodiversity where compatible with operational activities.	Conservation and Recreation Officer CMPs.	£30k	£4.2k	£8k	U	*	*	Three partnership plans are already in place, two further such plans being developed and four plans have been completed along the Medway Navigation during 1999/2000. The Action has been brought forward through LFDC funding.
6.12  	Support appropriate partnership initiatives to exchange, update and evaluate survey information such as the Phase I Habitat Survey and on water related SNCIs.	Conservation and Recreation Officer Various organisations, societies and clubs.	£13k	£1k	£4k	£4k	£4k		The Agency has reviewed key water related SNCIs and made information available to KCC and KWT. The Agency is represented on Steering Groups for both Review of Kent SNCIs and the Update of the County Phase I Habitats Survey.



KENT ISSUE 7: Illegal movement of freshwater fish through Kent







Illegal introductions of fish into the wild can lead to spread of disease, loss of genetic integrity, over stocking and degradation of water ecology. Due to Kent's proximity to mainland Europe, there is a perceived increase in the illegal importation of exotic fish. CEFAS and the Agency are involved in regulation but due to a lack of clarity in the interpretation of legislation, neither organisation is able to be as effective as necessary.





No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
7.1 	Continue to input into the current fisheries legislative review to provide integrated, effective statutory powers and influence the results.	Team Leader Fisheries CEFAS / MAFF.	£2k	£2k					The Review Group has reported. The Agency welcomes the proposals put forward. Awaiting Government response to proposals.
7.2 	Set up an intelligence database to increase proactive targeting of illegal activities.	Fisheries Scientist MAFF / CEFAS.	£2k	£2k					The intelligence database has now been delivered to Regions and relevant staff have been trained in its use.

KENT ISSUE 8: Protection and enhancement of important wetlands

This section covers areas supporting nationally or internationally significant numbers of water-related flora or fauna, many of which have some form of designated protection. The Agency has a number of responsibilities related to authorisations or its own works that have the potential to adversely effect conservation interests of such sites. These requirements are being addressed as one of the highest priorities.


No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
8.1  	Work with English Nature to establish conservation objectives and environmental criteria for all internationally designated sites within Kent area against which Agency operations and authorisations can be assessed.	Team Leader Conservation and Recreation EN.	£2k	£1k	£1k				Agreement reached with local EN office for Agency to comment on draft conservation objectives for internationally designated sites. Currently awaiting first tranche. Production of conservation objectives by EN may be delayed - this could have serious consequences on other actions.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
8.2  	Develop and adopt procedures to ensure that all Agency operational works within internationally designated sites comply with the Habitat Regulations.	Conservation and Recreation Officer EN.	£12k	£6k	£3k	£3k			Habitat Regulations Officer has been appointed within Conservation and Recreation Team. Set of site files created and sensitivity tables under preparation. Draft guidance on procedures developed with Officer from EN on a 6 month secondment to Agency, based in Kent area office. Cascade meetings and training held in February for all relevant Kent area Staff.
8.3  	Implement a phased review of all relevant Agency authorisations with the potential to adversely affect the interest of internationally designated sites as required under the Habitat Regulations.	Conservation and Recreation Officer EN, licence holders.	U	£7k	£7k	U	U	U	Area Environment Planning Manager appointed as lead officer in Kent. Kent Working Group established to ensure consistent and multifunctional approach. Liaison meetings held with EN and statutory undertakers. Stage I of review for all sites almost complete. Stage II now underway.
8.4  	Process all new applications to the Agency for authorisations with the potential to adversely affect the interest of internationally designated sites as required under the Habitat Regulations.	Conservation and Recreation Officer and Team Leader Tactical Planning EN, applicants.	£100k	£25k	£15k	£20k	£20k	£20k	Agency Consenting Officers have been trained in application of procedures. Procedures now on trial. Kent Working Group established to ensure consistent and multifunctional approach. Liaison meetings held with EN and statutory undertakers. Production of conservation objectives by EN may be delayed - this could have serious consequences on other actions.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
8.5  	In partnership with landowners and conservation bodies develop and implement in a phased way WLMPs for important wetlands where the Agency is the operating authority.	Team Leader Flood Defence Planning and Projects EN, landowners, RSPB, CMPs.	£40k	£6.7k	£20k	U	*	*	<p>Kent area reported to MAFF to update national database on WLMPs. Programme identified to install further gauge boards and procedures adopted to record and report water level data.</p> <p>With all the WLMPs where the Agency is operating authority complete, responsibility for implementation passed to the TL Operations and Enforcement under the Changing Needs of Flood Defence project due to be completed in September 2000. Recommendations of each WLMP will be reviewed at this stage and programme for implementation considered. With no funding identified, the success of implementation of any recommendation is dependent upon partnership with landowners and conservation bodies.</p> <p>The Enhancement Officer (with funding from LFDC) progressed priority action on Preston Marshes WLMP to complete a feasibility survey to raise water levels on part of the site.</p> <p>£2k contribution made to the production of WLMP for the Dartford Marshes, through a partnership approach.</p>
8.6  	Seek opportunities to support projects, which make a significant contribution towards biodiversity, through partnership with priority given to creation and management of reed beds, marshland water meadow and wet woodland.	Team Leader Conservation and Recreation Various.	£100k	£14k	£5k	U	*	*	<p>Agency is supporting establishment of a new RSPB reserve on the North Kent Marshes.</p> <p>Further projects being investigated.</p>





KENT ISSUE 9: Declining flows in Kent area rivers

Historical over-abstraction for public water supply from chalk and greensand aquifers has led to depletion of river flows and groundwater levels, exacerbated by climate change. The depletion of spring flows has led to degradation in wetland habitats and reduced species diversity as well as a loss in dilution capacity for effluent discharges. The aim is to enhance baseflows to restore natural characteristics and species diversity.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
9.1 	Complete the Kent area Low Flow alleviation schemes identified in the National Environment Programme.	Water Resources Manager Water companies, EN, LAs, conservation groups.	£30k	MP	£30k	MP	MP	MP	Darent Area Low Flow Alleviation Scheme Phase II investigations in progress. North Kent springs investigations in progress as part of the Habitats Directive Review. Further investigation and development of Little Stour and Dour area Low Flow Alleviation Schemes awaiting notification by the water companies of their capital spending programmes under AMP III.



KENT ISSUE 10: Reduction in river baseflow producing deterioration in water quality

For many spring fed streams groundwater abstraction, in some cases exacerbated by drought, has resulted in a substantial reduction in the volume of water available for the dilution of wastewater treatment works effluent. Other rivers, such as the Beult are particularly vulnerable since their headwaters are largely supported by small rural treatment works which leads to nutrient enrichment. Effort is required to ensure continuity of flow and improvement in effluent quality.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
10.1  	Define the target flows necessary to achieve River Quality Objectives at key sites. Produce a report and take action to attain recommendations by a combination of various methods i.e. augmentation, abstraction reduction and improved local waste water treatment. Make changes via periodic review and/or Section 20 agreements and the AMP round.	Water Resources Manager & Team Leader Tactical Planning Water companies.	MP	MP	MP	U	U	U	<p>The Kent area is progressing a more proactive role with regard to Water Quality Planning.</p> <p>Work is in progress on the identification of key sites under AMP III.</p> <p>Preliminary review undertaken this year to identify key sites (e.g. Ashford WWTW) and assess options for Agency action under the Kent Catchment Abstraction Management Strategy (CAMS) (and AMP IV), where possible in partnership with SWS.</p> <p>Medway Estuary Study initiated to establish relationship between principal factors influencing water quality and flows in estuary. Phase I covers data review, data enhancement and scoping options for further investigations and management.</p>
10.2  	Where appropriate to water quality and resources requirements, promote and support a policy based on retention of dispersed treatment plants. (Oppose diversion and concentration of WTW at downstream sites).	Team Leader Consents & Team Leader Tactical Planning Water companies.	£5k	£1k	£1k	U	U	U	<p>SWS proposals to transfer the flows from Coxheath WWTW were not agreed by the Agency. The works will remain open.</p> <p>Discussions regarding the closure of other small WWTW are ongoing.</p>



KENT ISSUE 11: Deterioration in the condition of land drainage

Many of the marshes in the Kent area are drained by pumping stations, many of which are approaching the end of their working lives. In some locations it may be difficult to justify rebuilding. A strategic review would identify problems, long term objectives, options and funding arrangements, which need determination before the condition of pumping stations becomes more critical.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
11.1 	Undertake a strategic review of pumping systems in the Kent area to assess the options for flood defence and land drainage over the next 50 years.	Team Leader Flood Defence Planning and Projects Landowners.	£50k	-	£45k	U			The Team Leader Operations and Enforcement will identify the existing pumped drainage systems and review the current requirements, procedures and assets. This review will be fed into the River Rother fluvial strategy, programmed to start 2000/20001, to develop a strategic approach to asset management.
11.2 	Produce Fluvial Strategy Plans and implement identified actions through the capital programme.	Flood Defence Manager IDBs, LAs.	£80k		£45k	-	£35k		Three catchments (Medway, Rother and Darent) have been identified for fluvial strategy plans in the years 2000-2010. The River Rother and Medway tributaries have been scheduled within the EA/MAFF Forward Planning Scheme.



KENT ISSUE 12: Water quality improvements

There has been a recent reduction in compliance in the Kent area with River Ecosystem targets, predominantly due to reduced river flows (Issue 9) and effluent dilution. There are also pressures from diffuse pollution from urban run-off and agricultural pesticides. Improving water quality is a high priority and it will include managing sampling data to identify actions the Agency can take.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
12.1 	Advise on and encourage liquid effluent load reduction through minimisation and recovery techniques and reduced water usage.	Environment Protection & Environment Planning Managers Industry, householders, farms and landowners.	£200k		£45k	MP	MP	MP	No progress expected until current reporting year.
12.2 	Advise and encourage farmers and others to minimise pollution from fertilisers and pesticides and encourage Buffer Zones. Promote publication of successful prosecutions.	Environment Protection & Environment Planning Managers Farmers, landowners, NFU.	MP		MP	MP	MP	MP	<p>The Groundwater Regulations have been implemented providing farmers with advice on pesticide use, disposal and minimisation.</p> <p>Nitrate Vulnerable Zone protection has become a statutory role for the Agency under the Action Programme for Nitrate Vulnerable Zones (England and Wales) Regulations 1998, having previously been an advisory role. This has provided the Agency with increased control over fertiliser and manure management in NVZs. Whilst the Action Programme Measures are only compulsory within NVZs, they are based on Good Agricultural Practice and are recommended for use on all farms.</p> <p>The Agency has developed a Diffuse Pollution Policy.</p> <p>Farms will continue to be regulated under the Water Resources Regulations 1991 and SAFFO Regulations through the Agency's Enforcement and Prosecution Policy, with successful prosecutions publicised.</p> <p>Agency funds Kent High Weald FWAG officer in promoting environmentally sensitive farming. Agency has provided relevant targets to CMP's.</p>


KENT ISSUE 13: Improving bathing beaches

It is important that beaches are clean and free from harmful levels of bacteria and other contamination. In the Kent area there are 27 designated and 11 discretionary bathing beaches sampled by the Agency. Any individual failure of a sample to meet its targets is investigated. In the area, Folkestone is the one beach that has consistently failed but this should be remedied by the construction of the Folkestone/Dover treatment scheme.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
13.1 	Act in response to all bathing water individual sample failures by investigating the cause within 48 hours, in the same tidal conditions where possible.	Team Leader Environment Protection LAs, water companies.	£50k	£5k	£7k	U	U	U	Bathing Water Quality in England and Wales, 1999, report published. Working Group has been established, consisting of SWS, Agency area and Science and Marine Centre (based at Waterlooville) to discuss sample failures. Some of the identified failures should be addressed through AMP II and III works. Follow-up visits and further sampling has been undertaken at sample sites failing targets, where appropriate. Local Authority concerns on failures have been noted.
13.2 	Improve the aesthetic quality of bathing beaches by undertaking visual monitoring on a monthly basis and liaising with the Local Authority and water company to clear up any sewage debris.	Team Leader Environment Protection LAs, water companies.	£15k	£5k					A reduced programme of visual inspections has been undertaken and liaison has occurred where necessary. Future monitoring will be undertaken through a national programme of inspections, managed by National Laboratory Service from Waterlooville.




KENT ISSUE 14: Coastal oil pollution





The English Channel is one of the busiest shipping lanes in the UK at risk from potentially polluting cargoes such as oil; and chemicals. In the event of a disaster it is essential that there is a quick and competent response to minimise environmental effects. It is essential that plans are in place identifying responsibilities and working arrangements for the Agency and other interested parties.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
14.1 	Develop oil pollution plans in conjunction with key partners concentrating on harbours, estuaries and ports.	Environment Protection Manager Local authorities, port and harbour authorities, EN, MCA, industry.	£150k	£30k	£10k	*	*	*	Recent DETR requirements have resulted in estuary oil pollution plans being under the jurisdiction of the Port Authority. The Agency will give priority to those locations where there is no responsible Port Authority. An emergency exercise was undertaken at Otterham Creek in collaboration with KCC, LAs, Medway Ports, the Maritime and Coastguard Agency, local Landowners etc. New equipment for pollution incidents and emergency exercises recently acquired. The Final Draft of the Rye Harbour Oil Spillage Contingency Plan has been submitted to the Marine Safety Agency. This Plan has been developed with KCC and other consultees. A Harbour Emergency Exercise has been undertaken at Rye Harbour and staff training is on-going at the Oil Spill Response Centre and MSA.

KENT ISSUE 15: Increasing managed access to the water environment for recreation





The Agency is required to promote, where desirable, water related recreation. Improving access to water or land adjacent to it has been identified as a key action by many organisations. The Agency will give careful consideration to proposals for access, providing operational and environmental requirements are not compromised.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
15.1 	Continue to raise awareness about issues and opportunities to enjoy water related recreation through interpretative and promotional material including through collaboration Catchment Recreation Guides.	Team Leader Conservation and Recreation LAs, CMPs, governing bodies, user groups, landowners, Groundwork.	£65k	£5k	£15k	U	*	*	Agency collaborated with Romney Marsh Countryside Management Project to update Romney Marsh Walks Pack. No Catchment Recreation Guides produced to date.
15.2 	Promote findings of the Research and Development (R & D) undertaken by the Agency on the sustainable recreational use of riverine, tidal and coastal flood banks.	Conservation and Recreation Officer LAs, landowners, EN, Sport England. EH.	£4k	£1k	£2k	£1k			Agency staff from Conservation and Recreation and Flood Defence attended a workshop on R & D on recreational use of flood banks in London in October.
15.3 	Assess and consent applications for the construction of recreation routes on flood defences in line with the Agency's R&D report on "Recreational Use of Flood Banks" in order to resolve issues and reach an agreement for the works to proceed.	Team Leader Development Control LAs, Sustrans, landowners, governing bodies.	£10k	£2k	£2k	£2k	£2k	£2k	Agency has assessed a number of proposed recreation routes that potentially affect flood defences. To date no formal consent applications for works of this nature has been received. High level discussions are underway nationally with outcomes eagerly awaited. Several local schemes are under discussion. Consultations on-going for key proposals to provide schemes that allow recreational access without compromising the integrity of the flood defences or endangering the public. In Ashford, Agency has liaised with LPA and developers on the routing of cycleways and footpaths. In Maidstone, Agency has granted land drainage consent for works which encourage public access along the River Medway.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
15.4 	Through improved mutual understanding, work with Sustrans and LAs to promote the long-distance cycle network through Kent where relevant to Agency interests and compatible with our environmental and operational requirements.	FER Manager & Team Leader Development Control Sustrans, LAs, landowners, CMPs.	£24k	£3k	£5k	U	*	*	Meetings have been held between Agency staff and Sustrans representatives to highlight the difficulties inherent in promoting public access to operational flood defences, clarify issues of concern to the Agency and Sustrans and identify a way forward. Action is progressing. Strong position has been taken over ditch infilling at one site. Agency seeking alternative site for topsoil to avoid need to take to landfill site. Notwithstanding, ditch to be reopened.
15.5 	Develop and implement Site Management Plans for Agency landholdings with the potential for water related recreation and where compatible with our environmental and operational requirements.	Team Leader Conservation and Recreation CMPs, user groups.	£30k	£4k	£4k	U	*	*	Three partnership plans are already in place, two further such plans being developed and four plans have been completed along the Medway Navigation during 1999/2000. The Action has been brought forward through LFDC funding.
15.6 	Support provision of new facilities throughout Kent including the development of urban angling opportunities.	Team Leader Conservation and Recreation & Fisheries Scientist LAs, user groups, Sport England, angling clubs Groundwork.	£85k	£1k	£2k	U	*	*	Plans and proposals drawn up for a lake at Rushenden. Shepway DC and Councillors are enthusiastic about proposals. Consultation meeting has been held with local community. Kent area's External Funding Manager is seeking Single Regeneration Bid (SRB) money as there is no money included in the Fisheries budget for 2000/2001 for this project.
15.7 	Act as a mediator on issues concerning water-related recreation where requested to do so by the parties concerned and availability of staff permits.	FER Manager Landowners, recreation and conservation interests, LAs, governing bodies, CMPs.	£2.5k	£1.2k	£0.5k	£0.4k	£0.4k		The Agency has arranged to regularly attend the Medway River Users Association Meetings. Issues of safety and jet-ski use have been raised and referred to the Agency's Regional office for appropriate follow-up.


KENT ISSUE 16: Protection of archaeological heritage

The Kent area is noted for a wealth of sites and finds, but estuarine and marine archaeology have been poorly recorded in comparison with land based sites. The Agency has a duty when considering proposals relating to its activities to give consideration to protecting and conserving buildings, sites and objects of archaeological, architectural, engineering or historic interest.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
16.1 	Through improved liaison and information exchange with the County Archaeologist, ensure that Kent area has better access to information on known sites and finds.	Conservation and Recreation Officer KCC, EH, local societies, RCHEME.	£2k		£1k	£1k			The Agency continues to liaise and consult over specific projects. Archaeology is included in the list for information exchange.
16.2 	Encourage and (subject to a successful bid for resources) contribute to the evaluation of the archaeological resource of the Kent area, particularly areas under threat from coastal processes or changing water levels.	Team Leader Conservation and Recreation EH, KCC, landowners, local societies.	£20k			*	*		Information on initiatives and lessons learnt elsewhere is currently being collated. Action has not been progressed to date.
16.3 	Ensure capital schemes promoted by the Agency give full regard to any archaeological interest that may be affected.	Team Leader Conservation and Recreation EH, KCC, landowners.	£100k	£10k	£25k	U	*	*	Team Leader Conservation and Recreation represented Agency on New Works Steering Group. Progressed capital schemes have incorporated archaeology.
16.4 	Raise awareness both within the Agency and externally about the archaeological interest associated with Agency land holdings and Kent area in general.	Team Leader Conservation and Recreation Local societies.	£6k			*	*		No progress expected until next reporting year.



KENT ISSUE 17: Pollution Prevention

Pollution prevention is generally far less damaging to the environment (and cheaper) than addressing the effects of pollution and must form a priority in the Kent area.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
17.1 	Analyse existing information on pollution incidents to identify key industries for a campaign of visit. Undertake a campaign of visits to identified industries.	Tactical Planning Officer & Environmental Protection Manager Water companies, LAs.	MP	MP	MP	MP	MP	MP	<p>Detailed pollution incident data analysis has not been undertaken due to resource limitations, however, relevant industrial sectors and sites have been targeted when incident data identifies the need for active campaigns.</p> <p>Under the requirements of the Water Quality Improvement Plan, statutory failures of various Directives are investigated.</p> <p>Under the Len Catchment Protection Plan, all sites that could cause the closure of Springfield intake in the event of a fire or chemical spillage have been identified and visited to ensure the protection of potable supply in the event of an emergency incident.</p>



KENT ISSUE 18: Raising public awareness of environmental issues in the Kent area





The Agency works in partnership with statutory and voluntary groups to develop wider public awareness of environmental issues and promote best practice. The Agency is also committed to promoting and supporting LA 21 groups in the Kent area.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
18.1 	Raising public awareness of environmental issues in the Kent area.	LEAPs Officer and Team Leader Customer Contact All organisations identified as LEAP partners	£70k	£26k	£13k	U	*	*	Public awareness has been raised through the LEAP process, targeting reports at key stakeholders, making them available in public libraries and publicising LEAPs in the local media. All Consultation Drafts for Kent area (1 area, 5 catchments) were completed by the end of 1999 in line with the Agency's priority from the 1999/2000 Corporate Plan. Final Plans for 4 LEAPs were also published. On-going publicity and awareness raising through media, attendance of events, promotion in newsletters and journals, radio interviews and public awareness campaigns.
18.2 	Actively participate in Local Authority Local Agenda 21 Action Plans.	Team Leader Customer Contact LAs, LA 21 groups.	£10k	£2k	£2k	£2k	£2k	£2k	Agency regularly attends and participates in County Environment Co-ordinators/Local Agenda 21 Forum. Agency contributing to production of LA21 promotional leaflet for distribution throughout County, in collaboration with KCC and all LAs. Co-ordinated responses to Draft LA21 plans provided, with consultation from functions - 4 draft LA21 Strategies commented on for Kent county districts in 1999/2000.

KENT ISSUE 19: Development pressures and sustainable surface water management






Surface run-off from existing or new developments needs careful management to ensure there are no increased risks of flooding or pollution. There are several techniques of addressing the situation but there is also concern at the possible proliferation of structures and lack of maintenance or management so overall there should be strategic planning of surface water management.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
19.1 	Provide Interim Flood Plain maps with best current information to local authorities prior to production of new flood plain map.	Team Leader Development Control LAs.	£20k	£16k	£2k	£2k			<p>During year 1999/2000, Indicative Floodplain maps issued to all LPAs in Kent area. Maps issued in both digital and paper formats. Guidance notes were issued at the same time and a number of meetings were held with LPAs to discuss the maps.</p> <p>The production of up-to-date floodplain maps, as required by Section 105 (2) of the Water Resources Act, 1991, is on-going and it is hoped that the majority of these will be completed by the end of 2001.</p> <p>The Agency has prioritised production of floodplain maps by identifying 'hotspots' i.e. areas under particular development pressure. Ashford, Tonbridge and Sandwich are to be given priority and it is hoped to have information available on these areas by the end of 2000.</p>
19.2 	Review management of existing flood attenuation ponds and develop maintenance strategy.	Team Leader Development Control LAs, water companies, IDBs, developers, landowners.	£100k			*	*	*	No progress expected until next reporting year.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
19.3 	Liaison with farmers to encourage erosion reduction.	Team Leader Conservation and Recreation Farmers, FRCA, FWAG, CMP.	£10k	£2k	£2k	*	*		Agency supports Kent High Weald FWAG Advisor in promotion of environmentally sensitive farming (Buffer Strips) and nutrient balance, including agri-environmental schemes. Relevant targets have been set for CMP's.
19.4 	Undertake Section 105 surveys of flood vulnerable sites with modelling.	Team Leader Flood Defence Projects and Planning MAFF.	£1.8m	£420k	£322k	£300k	£300k		The indicative flood plain maps have been disseminated within the functions of the Agency. Section 105 topographical mapping is being undertaken to further improve the accuracy of the flood envelope. This work is now being undertaken within functions with full delivery within the year. This work will be reviewed annually and the project will be completed in 2002. Modelling of vulnerable areas is programmed to commence in 2002. Work to combine existing models has commenced, with the view to forming a seamless and integrated flood forecasting platform.
19.5 	Implement any recommendations from the Agency review into the Easter 1998 flood events in the Midlands that are relevant to Kent area.	Flood Defence Manager LAs.	£120k	£120k					The East Flood Action Group is to be closed down in April 2000 following the implementation of all identified actions.
19.6 	Investigate opportunities to utilise valley floodplains for flood storage, wetland habitat creation and aquifer recharge through a multi-functional project team.	Team Leader Development Control LAs.	£60k			*	*	*	No progress expected until next reporting year.



KENT ISSUE 20: Maintenance of existing flood defences

Maintenance of sea defences by the Agency is currently being reviewed under the Flood Defence Management System. Many of the areas protected have important conservation interests which could be affected by a decision to abandon or reduce the level of protection. A strategic review of priority nature conservation areas would assist a review of defences including the need to balance protection on both sides of them.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
20.1   	Complete the programme of Asset Management Surveys in the Kent area to provide information for decision of future investment in flood defences to be assessed, justified in benefit/cost terms and prioritised across the whole area. Consider the impact of proposed changes to the Agency's routine maintenance programmes particularly in terms of the potential affect on land at risk from flooding and nature conservation issues.	Flood Defence Manager	£1.5m	£600k	£300k	£250k	£250k	*	<p>All flood defence assets in the Kent area have been inspected and a report compiled identifying those in the worst states of repair. A programme of improvement works has been identified.</p> <p>11 of the 14 sub-catchments have been fully completed. The remaining 3 will be completed in 2000/2001 when the management reports and cost/benefits for those areas are delivered.</p> <p>70% of the Flood defence maintenance budget was justified in accordance with MAFF targets. This will rise to 100% in 2000/2001 when the asset inspection programme is completed.</p> <p>The Asset Information has populated the Flood Defence Management as it has become available. This system will analyse the standard of service across the area and influence the maintenance activities in future years.</p>
20.2  	Coastal Habitat Management Plans (CHaMPs) to be developed in collaboration with English Nature to help assess the impact of flood defence strategies on conservation sites.	Flood Defence Manager EN.	£2m	-	£25k	U	*	*	<p>The Environment Agency/English Nature LIFE bid has been successful. Project will be funded Nationally with no direct local expenditure.</p> <p>Steven Worrall has been appointed to manage the trial sites. These include the North Kent Coast and Dungeness to Pett levels.</p>


KENT ISSUE 21: Development pressures on environmental resources

Major developments in the Kent such as new housing allocations and the Channel Tunnel Rail Link (Issue 23) are adding to the natural environmental stresses in the area. The Agency needs to work with local authorities and developers to ensure that development is not situated in sensitive areas including areas at risk from fluvial and coastal flooding.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
21.1 	Assess the effectiveness of planning comments made by the Agency through monitoring of planning application decision notices.	Team Leader Planning Liaison LAs.	£10k	£2k	£2k	£2k	£2k	£2k	Monitoring programme due to begin in 2000/2001 due to new facility provided by Development Planning System (DPS) system.
21.2 	Monitor effectiveness of comments and recommendations made by the Agency to Local Authority Development Plans and Structure Plans.	Team Leader Planning Liaison LAs.	£20k	£20k					Target has been met by Study into Agency input into local plans in the Kent area. Scott Wilson consultants carried out Study and produced report with recommendations which have been implemented where appropriate. Budget spend and action completed.



KENT ISSUE 22: Contaminated land to be made suitable for development use

Land contamination can present a pollution risk to health, ground and surface water, ecology and the built environment. However suitably remediated land presents an opportunity for redevelopment helping conserve land as a resource. There is a significant industrial legacy, particularly in the north of the Kent area, but proper control during redevelopment is required to ensure avoidance of risks to the environment.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
22.1 	Leading into and following implementation of the contaminated land regulations, strategies to be prepared in conjunction with partners to identify and remediate contaminated land.	Contaminated Land Officer English Partnerships, DETR, LAs, industry, Groundwork.	£1m	MP	MP	*	*	*	New Contaminated Land Regulations and Guidance implemented from April 2000 onwards, so no progress made to date. New Contaminated Land Officer has been appointed. Subsequent remediation of "Orphan Special Sites" by the Agency will be undertaken following bids for Supplementary Credit Approval. On-going site-specific works and guidance with developers and local authorities continues.



KENT ISSUE 23: Environmental impact of the Channel Tunnel Rail Link (CTRL)


The CTRL is one of the UK's largest civil engineering projects crossing much of Kent. It is essential that the Agency continues to liaise with the developer and operator from preparation of the design through to completion of the project to maximise enhancement potential and minimise risk to the environment.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
23.1 	Continue liaison with RLE and contractors in order to secure best environmental practise in the initial stages and to inform RLE of the Agency's requirements.	CTRL Project Control Officer Union Railways, RLE, contractors, LAs, water companies.	£35k	£10k	£10k	U	*		Liaison with RLE and the Contractor(s) is currently on a weekly basis and this will continue throughout the project and beyond its completion.
23.2 	Continue liaison with RLE and contractors during construction operations to ensure ongoing implementation of previously agreed protocols to protect environmental resources. Environment Protection Teams to carry out regular inspections to ensure compliance with Agency's requirements.	CTRL Project Control Officer Union Railways, RLE, contractors, LAs.	£50k	£10k	£10k	U	*		Work approved by the Environment Agency through the consultation period is currently being undertaken by the contractor(s) and inspected by the Agency to ensure compliance with the approvals. Such works as landscaping, waste management licensing, watercourse enhancements/diversion, water quality etc., fall within this category. Environment Protection Teams continue to regularly inspect the sites but as the project progresses this role may reduce and will need to be reviewed.

KENT ISSUE 24: Sustainable waste management


The Agency has a role in helping implementation of the Government Waste Strategy in the Kent area. It will give advice on waste minimisation and process efficiency, will encourage better waste management to move waste up the waste hierarchy and will apply similar actions to waste transported through Kent under transfrontier shipment regulations.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
24.1 	Implement lessons learnt from existing campaigns such as Medway and Swale Waste Minimisation Project.	Tactical Planning Officer Industry	£1k	£1k	MP	U	U	U	Successful joint funding application awarded to the Kent Sustainable Business Partnership from European ADAPT funds. Future projects will be influenced by developing best practice and lessons learnt.
24.2 	Undertake collaborative projects for waste minimisation, industrial – commercial sector.	Tactical Planning Officer KCC, KSBP.	£15k	£15k	U	*	*	*	Environmental Management Systems Projects (EMS) are underway. These projects include seminars, workshops and sharing of best practice with 18 new companies participating. Waste Minimisation Demonstrator Project, a local project funded by KCC and the Agency and run by WS Atkins, drawing to completion with report under preparation. 12 companies joined the project in 1999-2000, undertaking programme of workshops, receiving consultation advice to draw up comprehensive waste minimisation implementation plans. Participating companies included industry (e.g. AMEC, Rugby Cement PLC) and a local authority. The successful joint funding application awarded to the Kent Sustainable Business Partnership, from European ADAPT funds, will enable future initiatives to be undertaken.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
24.3 	Assess quantity of green list wastes transported through the Kent area and ensure they are properly classified to avoid illegal activities. Instigate inspection programme.	Scientific Support Officer HM Customs & Excise, LAs, emergency services.	£15k			£7k	£4k	£4k	Responsibilities for Environment Protection and Planning teams have now been defined. Action requires resource allocation and business planning commitment to complete. Action may become a statutory duty in the near future.




KENT ISSUE 25: Waste management facilities

Controlled waste is regulated through the waste management licensing system by the Agency seeking to prevent pollution, harm to health and serious detriment to amenities. The need for new facilities is decided through the land use planning system by planning authorities.

No.	Action	Responsibility	Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
25.1 	Analyse licensed capacities and facilities available for deposit, treatment and keeping of waste.	Tactical Planning Officer LAs.	£1k		£1k				No progress expected until current reporting year. All licensed waste site data returns have been received from operators, as required by licences. Databases populated with this data.


KENT ISSUE 26: Sites claiming exemption from waste management licensing

The Waste Management Licensing Regulations 1994 specify activities that are exempt from a licence because waste is being re-used or put to beneficial use. Most exempt activities do not pay fees to the Agency so resources are not available to regularly inspect these activities even though they may have a high potential pollution risk. The Agency has developed a system to minimise pollution risks through appropriate site selection for activities under exemption 7 which may have wider application.

No.	Action	Responsibility	Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
26.1 	Prioritise exempt activities at the point of registration, inspect higher priority sites and assess compliance with the "relevant objectives" as set out in the 1994 regulations.	Team Leader Waste Licensing & Environment Protection Manager LAs.	£400k		£35k	U	*	*	No progress expected until current reporting year.
26.2 	Develop and implement a programme of sampling at sites where agricultural or ecological benefit is alleged.	Environment Protection Manager	£160k		£5k	*	*	*	No progress expected until current reporting year.
26.3 	Develop and implement a system of registration for exemption 9 and 19 that follows the system set up for exemption 7.	Team Leader Scientific Support	£35k	£35k					Systems developed for registration of exemptions 9 and 19, similar to procedure for Exemption 7. Procedure involves consultation process on location and activities. System now operational.



KENT ISSUE 27: Pollution from the metal recycling (scrap) industry

Metal recycling sites need to be controlled by a waste management licence or comply with an exemption from licensing. Before the formation of the Agency there were insufficient resources to bring all sites under regulation which needs to be resolved.

No.	Action	Responsibility	Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
27.1 	Survey the Kent area to establish names and addresses of all MRS in the area. Inspect all the facilities to establish basic information with which the Agency can prioritise and quantify workload. Develop, implement and review an Action Plan to obtain adequate applications for licences or exemptions for all sites.	Project Co-ordinator for Environment Protection Local police forces, LAs.	£185k	£185k					Survey completed and all known/suspected MRS sites visited to assess the need for authorisation. Sixty- one new applications for authorisation have been received. Approximately 20 sites have been cleared of waste by the operators, with enforced clearance of one site in partnership with Maidstone BC. New procedures to be implemented for monitoring registrations and carrying out inspections to statutory requirements





KENT ISSUE 28: Land application of sewage sludge

Sewage sludge deposited on land for agricultural benefit is not subject to waste management controls but has the potential to cause serious pollution if not managed properly. The Agency's role is limited to ensuring that there is no build up of heavy metals but there may be opportunities to work in partnership to minimise the pollution potential of this activity.

No.	Action	Responsibility	Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
28.1  	Develop partnership with sewage undertakers to encourage exchange of information. Encourage voluntary notification procedures ahead of revised legislation. Identify sensitive surface and groundwater locations where disposal should be restricted.	Scientific Support Officer MAFF, LAs, water companies.	£85k	£10k	£15k	£20k	£20k	£20k	Voluntary notification process is now firmly established within Southern Water. Agency database and GIS system are working well to track applications and could be taken forward as a National model. Selected applications are screened for Groundwater Protection and Habitats Regulations. Filed Inspections have been completed for Southern Region Best Practice targets.

KENT ISSUE 29: The danger of contamination of water supply intended for drinking

The Agency monitors water quality prior to its abstraction and is responsible for ensuring compliance with the EC Surface Water Directive. The Agency is also responsible for identifying sources of pollution and making sure improvements are made. General recommendations were made in the Ives report following a major chemical spill on the River Severn which can be followed to make a positive effect.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
29.1  	Encourage the completion of a water supply source zones and major aquifer protection plan. Apply the lessons learnt as above to wider areas of Kent.	Groundwater Protection Officer Water companies, LAs.	MP	MP	MP	U	U	U	<p>The Southern Region set of water supply source zones and major aquifer protection plans have been agreed with the water companies for incorporation in the National dataset over a year ago. The Final Drafts of these plans have been in use since June 1999, with publication being imminent. All financial costs being borne by National Centre for Groundwater and Contaminated Land.</p> <p>The Agency has commissioned a National Aquifer Study Project with BGS.</p> <p>Source risk assessments has been applied to all Environment Protection permits in Kent.</p> <p>NB/ It is intended to make Source Zone Maps available on the Agency web site, CD-ROM and hard copy maps.</p>
29.2  	Implement recommendations from the Ives Report by undertaking a series of catchment-specific campaigns of pollution prevention visits to all farms and industry in a catchment.	Environment Protection Manager Water companies, industry, farmers, LAs.	£60k	MP	£5k	U	*		Under the Len Catchment Protection Plan, all sites that could cause the closure of Springfield intake in the event of a fire or chemical spillage have been identified and visited to ensure the protection of potable supply in the event of an emergency incident.

KENT ISSUE 30: Sustainable management of landfill gas

Landfill gas, which is mainly methane, a powerful greenhouse gas, is caused by the decomposition of organic waste in landfill sites. There are numerous sites in the Kent area producing gas that is locally detrimental or contributing to the greenhouse effect. The Agency has a national target to encourage operators to install gas recovery systems to reduce this impact.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
30.1	Set up projects with the operators of key sites to project manage the enclosed flaring or energy recovery from landfill gas at sites. Review five key waste management licences with the view to requiring improved gas control. Implement review findings.	Scientific Support Officer Waste management companies, LAs.	£60k	£30k	£30k				Three new sites have been made aware of the Agency policy on flaring best practice. Extraction and generation schemes have been extended at another site and a new flare installed at a further site. New schemes are under construction at two more sites. The Agency is proactively discussing new schemes and extensions to other schemes with other operators. The Agency's guidance documents on best practice have now been issued.



KENT ISSUE 31: Risk of illegal waste disposal (fly-tipping)



The tight regulation of the waste industry that protects the environment has led to illegal operators who are undercutting the industry and flouting regulations. Particular illegal activities of concern in the Kent area are fly-tipping, unlicensed waste transfer sites, illegal landfill sites and sham recovery of imported waste. Some responsibility for control rests with local authorities and there is a clear need to work together with roles and responsibilities clearly defined.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
31.1	Develop agreement with local authorities on roles and responsibilities for flytipping by using the national draft Flytipping Protocol as a source document. Act in accordance with agreed roles. Publicise result of actions.	Environment Protection Manager LAs, landowners.	£100k	£30k	£30k	U	U	U	A Memorandum of Understanding has been produced between the LGA and the Agency, with consultation with LAs. A number of meetings have been held with LAs to clarify roles and responsibilities. A number of successful prosecutions for flytipping offences have been taken by the Agency, with resultant publicity of prosecutions.

MEDWAY ISSUE 1: Flood defence provision and operation in the Medway catchment needs to be reviewed to address the increased flood risk due to the predicted effects of climate change



The predicted effects of climate change such as sea level rise combined with gradual sinking of South East England will place increasing pressure on existing flood defences. The Agency is working with local authorities to ensure that new development occurs in appropriate areas and existing defences are maintained and their effectiveness reviewed (see Kent Issue 1). The Agency will also ensure that it can accurately identify and alert householders and landowners to flood risks (see Kent Issue 19).

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
1.1  	Confirm areas at risk from flooding in the Medway catchment.	Team Leader Development Control LAs.	£300k	£100k	£100k	£100k			<p>Production of up-to-date floodplain maps, as required by Section 105 (2) of the Water Resources Act, 1991, is on-going and it is hoped that the majority of these will be completed by the end of 2001.</p> <p>The Agency has prioritised production of floodplain maps by identifying 'hotspots' i.e. areas under particular development pressure. Within the Medway catchment, Tonbridge is to be given precedence and it is hoped to have information available on this area by the end of 2000.</p> <p>Consultants appointed to undertake this work in two stages, firstly the fluvial Medway upstream of Allington Lock and secondly, the tidal Medway downstream of Allington Lock. 'Main' river tributaries are to be included.</p> <p>A relatively minor flood event occurred in the Five Oak Green area over Christmas 1999. Although remote from 'main' river, Agency staff recorded the event and have updated records accordingly.</p>

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
1.2  	Ensure that owners and occupiers in flood risk areas are on the Agency's database.	Flood Defence Manager Property owners & occupiers.	£125k	£25k	£25k	£25k	£25k	£25k	Total number of properties located in areas at risk to flooding identified as being in the region of 10,500. Each of these identified properties has been mailed flood warning information and over 2000 properties have agreed to be placed on the Flood Warning Dissemination System to receive flood warnings.

MEDWAY ISSUE 2: Impact of predicted climate change effects on water management in the Medway catchment

Current climate change predictions associated with water resources include changes in rainfall and river flows, increased evaporation and a tendency for the South East to become drier. Because the effects are likely to be exacerbated in the South East it is necessary to institute a routine for monitoring the impact on the water environment. Special attention will need to be given to the flow regime at key measurement sections in the Medway catchment.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
2.1  	Institute a routine for monitoring climate change impacts on water supply demand growth and the balance of resources in the Medway catchment.	Water Resources Manager Water companies, conservation bodies.	MP	MP	MP	MP	MP	MP	Data review in progress with the objective of identifying significant climate trends within the catchment. Climate change scenarios to be adopted in the Southern Region Water Resource Management Strategy and the Kent Catchment Abstraction Management Strategies (CAMS).



MEDWAY ISSUE 3: Implications of the water resource supply and demand management strategy in the South East Region

Future development and management of water resources is addressed under Kent Issue 5 and relates to the formulation of a Southern Region Water Resource Management Strategy and a subsequent Kent Area Strategy, taking local pressures and priorities into account. The role of the Medway in transferring and supplying water will be an important factor in the development of both strategies.

Actions and progress addressing this issue can be found under Issue 5 of the Kent Area LEAP.




MEDWAY ISSUE 4: Effect on water resources of Blue Circle Industries moving cement works from Northfleet




Chalk excavation at Northfleet has been accompanied by increasing de-watering to protect quarrying and works. De-watering is not currently subject to licensing control but a coherent strategy to re-use this resource has been given added impetus by BCI's decision to move operations to Holborough. The Agency is in the process of evaluating a number of alternatives with the aim of finding the most environmentally cost effective solution.






No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
4.1  	Devise and implement an action plan for the development of Swanscombe Chalk groundwater resources for public supply and environmental enhancement.	Water Resources Manager Water companies, BCI, DETR.	£10k		£5k	£5k	MP	MP	Thames Water are currently investigating the potential for new sources of supply in the Swanscombe area.



MEDWAY ISSUE 5: How to enhance biodiversity in the Medway catchment

National policies and the Agency's commitment to biodiversity are identified in the Kent LEAP (Issue 6). This issue concentrates on actions where there are specific needs in the catchment.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
5.1 	Work with English Nature to complete and implement a strategy for the River Beult SSSI.	Team Leader Conservation and Recreation EN, landowners.	£10k	£4k	£3k	£1k	£1k	£1k	Drafting of strategy continues through iterative process with Conservation and Recreation in co-ordinating role for other functions. As now on Version 4.0, the strategy is nearing completion. A protocol is to be developed during 2000/2001.
5.2  	With funding from the Local Flood Defence Committee, identify and work with landowners in implementing a series of targeted river habitat enhancements.	Conservation and Recreation Officer Landowners, FRCA, FWAG, UMIDB.	£40k	£16k	£12k	£12k			Low stone weir constructed at Penshurst. Backwater enhancement scheme have been undertaken in Yalding together with several smaller scales schemes on the River Eden.







No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
5.3 	Support the creation of otter refuges throughout the catchment and creation of a significant safe haven between Tonbridge and Maidstone.	Conservation and Recreation Officer Landowners, farmers, UMIDB, MRP, FRCA.	£12k	£8.4k	£2k	£2k			Five artificial otter holts constructed with support from LFDC funding, four on the River Eden, one on the River Medway, with associated fencing and planting. Additional holt secured through partnership with developers. More planned for Tonbridge to Maidstone section through both development control seeking opportunities and through work with Medway River Project.
5.4 	Work with the UMIDB and local authorities to complete a habitat and water vole survey on the non-main river in the catchment.	Team Leader Conservation and Recreation UMIDB, LAs.	£15k	£2k	£8k	£5k			Contract has been prepared. Discussions on potential partners continues.
5.5 	Work with other partners to improve protection to the regionally important water vole colonies on the Leybourne stream, Larkfield lakes, Holborough Marshes and Cliffe Marshes.	Team Leader Conservation and Recreation LAs, EN, parish councils.	£5k	£3k	£2k				Agency objected to planning application at Leybourne Lakes/Larkfield to Tonbridge and Malling Borough Council, as did several other environmental organisations. Objection based on conservation grounds due to direct loss of habitat to water voles, disturbance during construction and as a result of development occupation and concerns over breeding bird populations. Planning permission has now been granted and the Agency is on the Working Group to assist with sensitive implementation and development of the site as an educational asset. Development close to Leybourne Stream granted Planning Permission. Agency CSC staff working to improve liaison with Tonbridge and Malling Borough Council. Discussions on-going with KWT over potential for designating key water vole sites as SNCIs.



No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
5.6  	Support sensitive management of Leybourne, Larkfield and Snodland Lakes and associated Medway riverside for birds such as marsh warbler and other species such as water voles including through an educationally focused country park. Resist inappropriate development.	Team Leader Conservation and Recreation LAs, MRP, RSPB, EN, KWT, parish councils, KCC, industry.	U	£4k	£4k	*	*	*	Agency objected to planning application on conservation grounds, as did several other environmental organisations. Planning permission has now been granted and Agency is on Working Group to assist with sensitive implementation and development of site as an educational asset. Discussions on-going with RSPB and Medway River Project over management of key riverside areas for Marsh Warblers.
5.7 	Continue to monitor the native crayfish population on the upper River Eden and its tributaries. Encourage protection of the River through designation as a Site of Nature Conservation Interest (Wildlife Site).	Conservation and Recreation Officer Surrey Wildlife Trust, Tandridge District Council, parish councils, landowners.	£12k	£3k	£3k	U	*	*	Further survey and monitoring work conducted. Downstream limit appears to have been established. Colonies also found in upper catchment. One site proposed as an SSCI Wildlife Site.
5.8 	Identify the features inhibiting the distribution of native crayfish on the upper Eden catchment. Identify options and mechanisms by which the inhibiting factors can be addressed.	Conservation and Recreation Officer Tandridge District Council, water companies, landowners.	U	£0.5k	£1.5k	*	*		This action will benefit from national R & D work on crayfish that is currently underway.
5.9 	Support partnership opportunities for sensitive adaptation of pill-boxes to enable them to be retained as both historic structures and as habitats for bats and other wildlife.	Team Leader Conservation and Recreation Landowners, LAs, interest groups, parish councils, MRP, KWT, KBG.	£15k	£1.5k	£1.5k	U	*		Improved liaison with Kent Bat Group established.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
5.10 	Assess the biodiversity interest associated with the tidal and inter-tidal areas of the upper Medway estuary and ensure that this is taken fully into account in the production of local plans and strategies.	Team Leader Conservation and Recreation & Team Leader Biology University of Greenwich, LAs, MRP, KOS.	£25k	£9.5k	£7.5k	U	*	*	Two surveys being undertaken each year at 9 sites to compare with existing/old data with aim of observing changes in biodiversity associated with water quality and water resources. Deadline for current programme of assessment is March 2001. Future monitoring will be dependent on additional funding sources. At the present time, funding is from the Medway Estuary Project and the National Marine Monitoring Plan (manpower only) so there are no additional resources available to assess the biodiversity. Winter bird counts have been completed.
5.11 	Support retention and sensitive management of the saline lagoons both at Cliffe and adjacent to the Medway Estuary.	Conservation and Recreation Officer Landowners, RSPB, EN, LAs, University of Greenwich, industry, Highway Agency	U	£1k	£3k	*	*		Invertebrate interest has been identified in lagoon adjacent to Medway. Relevant parties informed and a revised scheme of compensation is now under review. Agency's Conservation and Recreation staff represented on Cliffe Project. Action bought forward due to development pressure.

MEDWAY ISSUE 6: Spread of invasive species


The Medway catchment supports a range of non-native and invasive plants and animals, including Japanese knotweed, giant hogweed terrapin, mink and mitten crab. In most instances responsibility for control falls to the landowner or occupier and the Agency's role is to raise awareness and support appropriate initiatives aimed at achieving control.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
6.1  	Monitor common carp, Koi carp, rainbow trout and other exotic fish species in watercourses. Develop and distribute a questionnaire to angling clubs/landowners/Agency field officers to establish distribution of these species.	Fisheries Scientist Angling clubs, landowners.	MP		MP				Monitoring undertaken by Section 30 and ILFA procedures and the results of the fisheries surveys in rivers and streams. Questionnaire has been developed and will be distributed in June 2000.
6.2 	Maintain a database on the distribution of exotic and invasive water-related species in the catchment.	FER Technical Officer EN, NFU, FWAG, KWT, MRP, landowners, interest groups.	£5k	£1k	£1k	£1k	£1k	£1k	Exotic Species database has been developed. Data will be inputted into this database
6.3 	Help initiate and then support a collaborative eradication programme of giant hogweed along the River Medway.	Team Leader Conservation and Recreation MRP, LAs, NFU, landowners, farmers, MRUA, canoeists, anglers.	£20k	£6.5k	£5k	U	*	*	Giant Hogweed Forum held at Barham Court in January 2000. Forum attended by 60 members of the community. £4k provided from the LFDC as the Agency's contribution to the programme. Yalding-Maidstone area identified as a priority area.
6.4  	Support both containment measures and control initiatives for other water related species in the catchment where deemed appropriate and consistent with Agency national policy.	Team Leader Conservation and Recreation Landowners, EN, RSPCA, NFU, FA, MRP.	U	£1k	£2k	*	*	*	Team Leader Conservation and Recreation attended Robson meeting (National Aquatic Plant Control Forum). Assistance provided for national and regional data gathering initiatives.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
6.5  	Distribute relevant literature to landowners through other partners and produce further literature to assist in identification, raise awareness and improve knowledge about the distribution of exotics and generate support for their control.	Team Leader Conservation and Recreation MRUA, anglers, interest groups, MRP.	£5k	£0.5k	£2.5k	£2k			Poster on Floating Pennywort entitled, "Have you seen this plant?" distributed during 1999/2000. Agency's in-house workforce have been encouraged to record sightings and send in records on distribution of exotics.




MEDWAY ISSUE 7: There are barriers to the movement of fish on the Medway

The weirs and sluices in place to maintain river levels can also act as barriers to the movement of fish, particularly migratory salmonids. Fish can also be displaced downstream under high flows or following the opening of sluice gates. Fish passes help remediate the situation but in some cases they have been ineffective due to the flows being too great for some fish species.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
7.1 	As Agency and privately owned structures come up for repair/modification, review their status and function in the light of the Medway migratory fish strategy. Consider and encourage construction of viable fish passes and weirs where possible and modification of existing passes where appropriate.	FER Manager Landowners.	£45k	£1k	£2k	£40k	*	*	A feasibility study has been undertaken into the refurbishment of Allington Sluice, including the provision of a fish pass facility. Findings expected at end of 2000.



MEDWAY ISSUE 8: Sustainable fisheries management

In the Medway LEAP area, there are a number of problems affecting the sustainable management of fisheries. These are addressed in Issues 6 and 7 and include the maintenance of riverine habitats for fish, the control of fish stocking procedures, the control of alien fish species, angling regulation for both coarse and game fish and the control of illegal fishing practices. Abstraction intakes can also potentially affect fish stocks. Such issues are important both from an ecological and commercial viewpoint.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
8.1 	Extend monitoring for allis and twaite shad in the tidal estuary.	Fisheries Scientist EN, Kent & Essex Sea Fisheries Committee, commercial anglers, CEFAS.	£18k	£6k	£6k	£6k			5 sample sites examined and sampled in June and October 1999. Subsequent report on findings produced. No evidence of adult or juvenile shad found. Local inquiries indicate that no shad have been caught in 1999. Returns made to KCC for the BAP update.
8.2 	Investigate and report on the implications of further regulation of fishing in the tidal Medway up to Allington.	Team Leader Fisheries Medway Ports Authority, Kent & Essex Sea Fisheries Committee, commercial anglers.	£5k		£2.5k	£2.5k			An internal meeting has been held to formulate the Agency's approach in response to a request from the Sea Fisheries Committee to introduce bye-laws. No action is proposed until a clear national Policy has been produced, based partly on the Fisheries Review.
8.3 	Maintain or improve current levels of fisheries enforcement. Set targets for a reduction in poaching and in the number of unlicensed rod and line anglers/commercial eel nets.	Team Leader Fisheries Angling clubs, police.	£18.5k	£3.5k	£4k	£4.5k	£3k	£3.5k	The licence checking team is now operating at full capacity. Fisheries Offence Processing System enables targeting of high evasion areas. Rod and licence evasion rate is now less than 5% in Kent. There were no substantiated reports of unlicensed commercial eel nets in 1999/2000.


MEDWAY ISSUE 9: Increased incidence of river bank erosion and associated siltation

The effects of erosion, either natural or as a result of navigation or artificial river management are evident throughout the Medway catchment. Flood control structures can change the flow regime causing increased erosion (and siltation) particularly in areas not previously affected. Apart from these causes, erosion can also be caused by ground conditions, loss of vegetation on river banks, removal of vegetation and cutting of steps by anglers or heavy use by walkers and cyclists. Subsequent siltation can reduce the potential for water sports in some areas.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
9.1 	Review existing operating procedures for the River Medway Flood Relief Scheme to identify opportunities for a more holistic approach to flood alleviation.	Flood Defence Manager MRP, landowners, LAs.	£5k		£5k				No progress expected until current reporting year.
9.2 	Continue liaison with MRUA and angling clubs to minimise adverse impacts of riverside activities.	Team Leader Navigation and Team Leader Fisheries MRUA, angling clubs, landowners.	£5k	£1k	£1k	£1k	£1k	£1k	The Agency continues regular liaison with MRUA through the Medway Navigation Team Leader and RFERAC.



MEDWAY ISSUE 10: Redevelopment of older waterside areas to maximise the use of the land

It is recognised that developing next to water can provide regeneration benefits, particularly in the Medway Towns but this can create conflicts such as the loss of habitats by hardening the frontage. In future the Agency will wish to work closely with local authorities, developers and others with an interest to ensure that opportunities for maintenance and enhancement are not missed. In addition, some sites are contaminated from previous uses and careful investigation and remediation are needed before they can be adapted to new uses (see Issue 18).

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
10.1 	Liaise with and assist LAs and developers by producing recommended planning guidance for developing waterfront areas in the Medway catchment (both fluvial and tidal) including recommendations for habitat creation.	Team Leader Planning Liaison LAs.	£20k	£5k	£5k	£5k	£5k		On-going consultations with Local Authorities undertaken. Comments made on 1999 Draft Medway Local Plan Consultation. Series of meetings held with Medway Council and with prospective developers for Rochester Riverside area. No progress to date with progress on formal guidance.



MEDWAY ISSUE 11: Protection of river flows in River Beult

The flow in the River Beult is heavily dependent on the input from local wastewater treatment work, which can lead to nutrient enrichment and eutrophication. Discussions are ongoing with Southern Water Services to improve the effluent quality from these works. The closure of existing works could adversely affect river flow and would be opposed by the Agency. The Agency has a Memorandum of Understanding with EN and is producing a strategy and protocol for the River Beult which, when implemented, will serve to protect the river from deterioration.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
11.1 	Develop and implement a strategy for the River Beult to ensure that existing WWTW discharges are retained and where necessary, improved in quality.	Water Resources Manager & Environment Planning Manager SWS, LAs, EN	£2k		£2k				Water Resources are undertaking an audit in 2000/2001 to establish the state of continuous measurement facilities for WWTW final effluent. The preliminary report is expected at the end of the year. There has been no capital expenditure at this stage and subsequent spending will be on supplementary field measurements.
11.2 	Negotiate and secure funding under the AMP III process for nutrient stripping (phosphate) at the 13 Southern Water Services Ltd WWTW that discharge to the River Beult. (Cost of £13 million to SWS).	Environment Planning Manager SWS.	£2k	£2k					Nutrient stripping (phosphate) has been agreed and included within AMP III for all 13 Southern Water Services Limited WWTW sites that discharge in to the River Beult.


MEDWAY ISSUE 12: Need to improve our understanding of flow and water quality in the upper Medway Estuary

Water quality in the upper Medway Estuary is at times very poor as it receives a large volume of industrial and sewage discharges. Recent instances of rapid deterioration in quality at times of low summer flow, point to the need for a better understanding of how variations in river flow affect the quality of water in the upper estuary. This may in turn lead to a review of the minimum residual flows and other conditions currently governing abstraction, effluent discharge and the temporary emergency measures authorised under drought orders and permits.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
12.1  	Implement the Medway Estuary Project incorporating a review and enhancement of hydrological and environmental quality data and identification of management options.	Customer Services Manager Water companies, Medway Ports, Medway Estuary and Swale Partnership, industry, LAs.	£250k	£45k	£120k expected				Undertaken review of environmental data for the Medway. Additional biological and fishery monitoring initiated. Bathymetry surveys have commenced.

MEDWAY ISSUE 13: Adverse impacts of flood defence operations on habitats and fisheries

Actions for addressing this Issue are dealt with on an area-wide basis in Issues 6 and 20 of the Kent area LEAP but it has particular relevance in this catchment to an area known as the Haysden Shallows, down stream of the Leigh Flood Defence Barrier, Tonbridge, which have been adversely affected by flood defence works.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
13.1 	Review options for mitigation measures at the Haysden shallows, Tonbridge.	Team Leader Flood Defence Planning and Projects Landowners, angling clubs, LAs.	£2k		£1k	£1k			The management of the trees in the Haysden stream has been identified in the Flood Defence maintenance contract for year 2000/1. A topographical survey will be undertaken in 2000-2001 to identify bed gradients and water levels to feed in to the review of options.



MEDWAY ISSUE 14: Protection and enhancement of wetland and riverine habitats

Actions for addressing this Issue have been dealt with on an area-wide basis in Issue 8 of the Kent Area LEAP. Within the Medway catchment there are three areas which have been designated as internationally important areas for nature conservation under the Habitats Directive and the Agency is obliged to review its consents and authorisations for such sites (see Kent Area LEAP). There are also several national and numerous local designations in the catchment.

Actions and progress addressing this issue can be found under Issue 8 of the Kent Area LEAP.




MEDWAY ISSUE 15: Non-compliance with EU standards and Agency objectives for water quality

Although most watercourses comply with quality standards some problems do exist such as combined sewer overflows (CSOs). Some issues are being addressed under AMP II, but not CSOs, and further schemes for improvement have been proposed by the Agency under AMP III for the period 2000 – 2005, including CSOs.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
15.1 	Monitor and ensure completion of AMP II investment programme in the non-tidal Medway (Cost of implementing AMP II is approximately £15million to SWS).	Team Leader Water Quality Consenting SWS.	£5k	£2.5k	£2.5k				The programme is running behind schedule due to design reviews being undertaken by SWS, in light of tighter standards being imposed by the Agency. Improvements at Tunbridge Wells (North) STW were completed at the end of March 2000.
15.2 	Review the status of CSOs with respect to their licensing and control.	Team Leader Water Quality Consenting SWS.	£5k	£5k					A programme of prioritised review of CSOs has been undertaken, including those relevant under the Habitats Regulations 1999. CSOs have been identified and actively included in AMP III.




MEDWAY ISSUE 16: Intermittent pollution of surface and ground waters





The Medway is a particularly sensitive catchment in terms of water quality due to the presence of water supply intakes and occasional low flows as a result of abstraction during periods of drought. For this reason, the prevalence of serious pollution incidents, discrete discharges and diffuse pollution is of concern to the Agency. The catchment also contains two nitrate vulnerable zones at Boxley and Thurnham, north east of Maidstone, where application of fertilisers has to be controlled to protect the chalk aquifer.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
16.1 	Increase control of discharges from industrial estates. Increase environmental awareness within industry, highlighting benefits of environmentally sound operations.	Environment Protection Manager Industry, LAs.	U			*	*	*	No progress expected until next reporting year.
16.2 	Promote increased environmental awareness amongst landowners in the catchment as to the use of agrochemicals (fertilisers, herbicides, and pesticides). Enforce tighter control of their use near watercourses and in NVZs.	Environment Protection Manager MAFF, NFU.	£400k		£40k	U	*	*	No specific initiatives undertaken to increase awareness in 1999/2000 although on-going dissemination of best-practice during inspections and farm visits and through implementation of new Groundwater Regulations which includes provision of advice.
16.3 	Undertake Catchment Protection Plan inspections, starting with the Eden Catchment. (The Len Catchment has been completed).	Team Leader Tactical Planning Industry, SWS, water companies.	£5k	£1k	£1k	£1k	£1k	£1k	The Pilot scheme in the Len catchment has been completed. Some progress has been made on farm visits in the Eden Catchment. Regional Guidelines and a template for the development of Catchment Protection Plans has been produced. Further progress will be dependent on the outcome of a national priority planning exercise.

MEDWAY ISSUE 17: Managing access to water for recreation in the Medway catchment

The Agency is required to promote, where desirable, water related recreation. The Agency owns relatively little land in the catchment and is not responsible for facilities at reservoirs so promotion can only be achieved through partnership. However the Agency is the navigation authority for the non-tidal Medway up to Tonbridge with access available at many points for a variety of uses. The Agency has also supported The Medway River Project which has promoted water related recreation.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
17.1 	Continue the annual removal of shoals (in line with published navigation information) on the 31 kilometres of freshwater River Medway.	Team Leader Navigation Landowners.	£125k	£25k	£25k	U	*	*	In 1999, navigation channel was cleared by Mid April. Task is on-going.
17.2 	Prepare and implement a Waterway Plan to help deliver the business case for improving the inland navigation. Based upon an asset survey and resource review, the plan will develop a capital expenditure programme through which opportunities for a partnership approach to the provision of improved and new facilities such as access points, moorings and canoe passes can be pursued.	Team Leader Navigation LAs, MRP, MRUA.	£2m	£250k	£250k	U	*	*	Initial draft Plan has been prepared. Further work is required to develop asset database and identify opportunities. Plan due to be submitted to RFERAC in July.
17.3 	Review current Agency enforcement practises along the inland Medway Navigation and consider options for encouraging compliance with the relevant byelaws.	Team Leader Navigation LAs, Police.	£50k		£10k	U	*	*	The approval of new byelaws is still awaited.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
17.4 	Review the liaison procedure between the Agency and interest groups on the inland Medway Navigation over the lowering of individual lock pens for maintenance or repair and consider recommendations.	Team Leader Navigation MUA, MRP	£1k	MP	MP	U	*		Medway River Users informed over routine operations at monthly meeting. Distribution of "Notice to Mariners" widened to include angling and other bankside users expressing an interest.
17.5 	Contribute to the Maidstone River Park Millennium Scheme including refurbishment of the riverbank at Allington Lock and other sites in order to benefit recreational use.	FER Manager MAFF, River Park, Maidstone Council, MRP.	£330k	MP	£330k				Progress on Scheme is underway and programme is due for completion 2000/2001.
17.6 	Encourage and support retention and development of Leybourne and Larkfield Lakes as a sustainable low-key Country Park with the emphasis on its use for quiet informal recreation compatible with its high conservation value and as an educational asset.	Team Leader Conservation and Recreation Tonbridge & Malling BC, Interest Groups, MRP, Parish Councils	U	£2.5k	£2.5k	*	*	*	Agency objected to planning application on conservation grounds, as did several other environmental organisations. Now that planning permission has been granted, Agency sits on Working Group to assist with sensitive implementation and development of site as an educational asset.
17.7 	Continue to assist in reaching consensus over the future of the Thames and Medway Canal. Investigate viability of proposals for the future operational viability of the Canal.	Team Leader Conservation and Recreation & Team Leader Water Resources.	U	£2.0k	£2.5k	*	*		Liaison with Thames and Medway Canal Association and Groundwork Kent Thameside is continuing with a view to a meeting in the next few months.


MEDWAY ISSUE 18: Redevelopment of industrial areas needs to ensure that any contaminated land is appropriately remediated

Actions for addressing this Issue are dealt with on an area-wide basis in Issue 22 of the Kent Area LEAP. There is however, considerable pressure for housing development in the catchment with this issue being particularly relevant to the riverside areas in Rochester, Strood and the Isle of Grain. Due to their recent industrial history, there are frequently opportunities to allocate industrial land for such development in these areas. A remediation strategy will be prepared following identification of suitable sites for re-development.

Actions and progress addressing this issue can be found under Issue 22 of the Kent Area LEAP.



MEDWAY ISSUE 19: Extraction of minerals may create environmental impacts within the catchment

The Medway catchment is one of the principal areas of mineral extraction in Kent including chalk for cement. There may also be need for clay and additional construction aggregates. Care will be required to ensure that the environment is conserved as a result of these operations.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
19.1 	As a statutory consultee on minerals planning applications, work with minerals planning authorities in producing local minerals plans and seek to minimise the impact of mineral extraction on the environment.	Team Leader Planning Liaison MPAs.	MP	MP	MP	MP	MP	MP	On-going consultations with Minerals Planning Applications. No Minerals Local Plan Consultations for 1999/2000, only some background correspondence with the planning authorities.


MEDWAY ISSUE 20: Spreading of paper sludge wastes on agricultural land

Papermaking is historically a major industry in the Medway catchment and remains so to this day. Sludge from the papermills both inside and outside the catchment is occasionally spread on agricultural land and the practice is of increasing concern to the Agency. The practice is of uncertain agricultural and ecological benefit and on occasions can cause odour problems.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
20.1  	Define site specific benefits of application of paper sludge.	Team Leader Scientific Support MAFF, DETR, Paper Industry Federation.	£50k	£10k	£10k	£10k	U	U	A protocol for the proper environmental operation of landspreading activities is currently under development with the main operators, to include site appraisal. Waste recovery operations are likely to move away from the reliance on landspreading in 2001 with the construction of a waste to energy plant. All applications are assessed against environmental criteria on a site specific basis.



MEDWAY ISSUE 21: Waste management options for the Medway catchment

Waste management is a strategic issue relevant to the whole area and the waste issues affecting the Medway catchment are the same as the issues facing the whole of Kent. Waste management issues such as flytipping, exemptions and the scrap metal industry are addressed in the Kent Area LEAP. The issue below follows on from the recent Medway and Swale Waste Minimisation Project and has relevance to the whole Kent area.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
21.1 	Increase waste minimisation and recycling initiatives by continuing collaborative projects to encourage waste minimisation in business in the catchment	Team Leader Tactical Planning LAs, GOSE, local business.	£15k	£15k	U	*	*	*	Environmental Management Systems Projects (EMS) are underway. The successful joint funding application awarded to the Kent Sustainable Business Partnership for resources will enable future initiatives to be undertaken within the catchment, however, financial details are not yet confirmed.

MEDWAY ISSUE 22: Raising public awareness of environmental issues

The Agency has a good record of working with those in rural environment groups and wishes to improve its awareness amongst other groups. This issue is addressed in this LEAP as the catchment includes large urban communities that have not previously been very involved with the Agency and there is a perceived need to involve and be involved with these communities. In addition, as already stated, the Medway Navigation has a wide variety of uses and users and there is a need and an opportunity to raise awareness specifically among them.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
22.1 	Work more closely with communities who have previously had little involvement with the Agency notably urban communities in North Kent.	Customer Services Manager LAs, community organisations.	£30k	£12k	£18k	*			Initiated projects in North Kent working with the Racial Equality Council to improve liaison with ethnic communities.
22.2 	Implement measures to raise environmental awareness and understanding by and between all users of the inland navigation.	Team Leader Navigation & Team Leader Conservation and Recreation MRUA, MRP.	£5k	£1k	£1k	£1k	£1k	£1k	Mailshots and handouts of suitable brochures undertaken to raise awareness of key issues e.g. Anti-fouling paints.



NORTH KENT ISSUE 1: Additional data is required to assess the cumulative effects of certain emissions from industrial processes and other sources both within and outside the area

Actions addressing the issues of air quality are dealt with strategically in Issue 3 of the Kent Area LEAP. The Issue is highlighted in this LEAP due to the main concentration of industrial activity in Kent in the area. The Agency is also required to assess the effect of emissions from authorised IPC sites on conservation sites designated under the Habitats Directive, of which there are many in the North Kent area.

Actions and progress addressing this issue can be found under Issue 3 of the Kent Area LEAP.




NORTH KENT ISSUE 2: Historic development of groundwater has resulted in general deterioration in the balance of water resources as evidenced by the depletion of spring fed chalk streams and increased stress on wetland habitats

The principal water resource in the LEAP area is the Chalk aquifer, which is heavily committed with respect to abstraction licences. Groundwater abstraction from Chalk currently constitutes over 90% of the total licensed abstraction. The Kent area of the Agency faces the task of restoring the balance of water resources for the most severely affected areas by implementing a policy aimed at reducing the current dependence on groundwater. This will in turn aid the process of low-flow improvement for the more important spring-fed chalk streams.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
2.1  	Carry out an assessment of the balance of water resources for the Chalk aquifer. Consequently, set targets for the improvement of low flows on spring fed streams and review the abstractions affecting the ecology of wetland areas designated under the EC Habitats Directive.	Water Resources Manager EN, water companies, other abstraction licence holders.	£100k	£100k	MP	MP	MP	MP	Gauging stations have been established on selected spring fed streams and additional boreholes to allow measurement of fluctuations in groundwater storage. Now in the early stages of the assessment process.




NORTH KENT ISSUE 3: The balance in area of intertidal habitats such as saltmarsh and mudflats in the Medway estuary and the Swale is changing as a consequence of a number of stresses



The intertidal habitats of the North Kent Catchment principally comprise saltmarshes and mudflats of high conservation value located to the seaward side of coastal defences. The balance of these habitats is changing due to pressures such as rising sea levels and coastal squeeze. The Agency, with other organisations, is preparing a long-term strategy for the defences of the estuary and investigations into the deposition of dredgings are proposed.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
3.1 	Support Medway Ports in reaching environmental and economically accepted solution to the recycling or disposal of their estuary dredgings.	FER Manager MP, EN, RSPB, LAs, universities.	MP		MP	MP	MP		Medway Ports have provided the Kent Area Management Team (AMT) with a briefing on Environmental Impact Assessment. The Agency has provided data to assist in the preparation of the Environmental Impact Assessment.
3.2 	Work with LAs towards reaching consensus over deciding what is appropriate development around the estuary.	Team Leader Planning Liaison LAs, EN, RSPB.	£5k		£2k	£1k	£1k	£1k	On-going consultations on planning applications and development briefs. Some correspondence with North Kent Councils on local plan matters but no formal consultations.
3.3 	Encourage LAs to adopt best practise in river frontage development, using lessons learnt from experience in the Tidal Thames.	Team Leader Planning Liaison LAs, developers, landowners, EN.	£15k		£3k	£4k	£4k	£4k	On-going consultation on planning applications and development briefs.

NORTH KENT ISSUE 4: How to promote water related recreation that is compatible with other interests

The Agency has a general duty to promote water-related recreation where desirable. The Medway Estuary, Swale and associated marshes provide opportunities for a wide range of recreational activities. However some activities have the potential to interfere with flood defence operations, cause damage to flood banks or present risks to public safety, which is being addressed as part of the Agency's national R&D programme.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
4.1 	Support production of the Medway Estuary and Swale Strategy through participation on the Steering Group and financial support subject to availability of resources and other priorities.	FER Manager KCC, Medway Council, Swale Borough Council, Medway Ports, MYA, EN, RSPB.	£10k	£5k	£5k				The Medway Estuary and Swale Strategy has been prepared and the Agency fully supports the partnership approach to delivery of strategy. The Agency is represented on the Steering Group. Targets have been agreed with the Project Officer to ensure value for money for contribution of £5k towards core costs and projects. Iterative process of strategy development underway. Major concerns remain over issue/inclusion of managed retreat.
4.2 	Support appropriate partnership actions within the Medway Swale Estuary Strategy subject to successful bids for resources.	Team Leader Conservation and Recreation Medway Swale Project Officer, Medway Council, KCC.	U	£2k	U	*	*		Partnership actions identified and implemented including support for Sensitivity Maps for wintering water fowl. Production of the strategy has been delayed. Further consensus building will be required, hence unknown resource implications for current reporting year.
4.3 	Support production of a pamphlet promoting 366 Days of Activities during the Millennium year raising awareness about environmental recreation.	Team Leader Customer Contact Medway Swale Partnership Officer, Medway Council, Swale Council, Sport England	£2.5k	£2.5k					Draft pamphlet produced with input from and full consultation with Environment Agency. Pamphlet distribution expected from June 2000 onwards.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
4.4 	Promote green tourism and increase environmental appreciation through support for interpretation boards at key 'watchtower' estuarine locations.	Team Leader Customer Contact Medway Swale Partnership Officer, KCC, EN, Swale Borough Council	£2k	£1k	£0.5k	£0.5k			Draft panels produced in full consultation with Environment Agency. Awaiting final drafts prior to approval and construction.
4.5 	Encourage the continued development and operation of Riverside Country Park in Gillingham.	Team Leader Conservation and Recreation Medway Council	U	£0.5k	£0.5k	*	*	*	Liaison maintained with Officers of Medway Council, including representation of Countryside Forum.




NORTH KENT ISSUE 5: Conserving and enhancing water related habitats and landscapes





Many of the water-dependent habitats within the North Kent area are under pressure (see Issue 3). Habitats and landscapes of this type are now rare within Kent and in a national context. It is proposed that the Agency will take a proactive role in conserving and enhancing these habitats and associated landscape, particularly for designated areas, BAP habitats and species and those affected by coastal squeeze. The Agency will also be proactive in identifying opportunities for creating wetlands. Actions to take this issue forward have been identified in the Kent LEAP.


Actions and progress addressing this issue can be found under Issue 2 and 6 of the North Kent LEAP.

NORTH KENT ISSUE 6: Protection and enhancement of biodiversity

The Agency has a general commitment to conserve wildlife associated with the aquatic environment and emphasis is given to actions required under the UK BAP, which also represent part of the Agency's commitment to implementing the Kent BAP. The Actions detailed below are where the most need is seen over the next five years and there is an intention to devote our resources as a priority. There are also several actions under other issues in this LEAP will also benefit biodiversity.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
6.1 	Continue to work with landowners, farmers, FRCA, MAFF and other over implementation and future of the North Kent Marshes Environmentally Sensitive Area Scheme.	Team Leader Conservation and Recreation Landowners, farmers, FRCA, MAFF, EN, RSPB.	£20k	£4k	£4k	£4k	£4k	£4k	Agency represented at North Kent Marshes Environmentally Sensitive Area Scheme Liaison Meeting in March 2000. Liaison maintained throughout the year.
6.2 	Support the collation and provision of environmental information to farmers in an appropriate, easy to use format.	Team Leader Conservation and Recreation Medway Swale Project Officer, MAFF, FRCA, EN, RSPB, Medway Council, Swale Borough Council.	£2k	£1k	£1k				Information provided to farmers indirectly through implementation of Groundwater Regulations and farm visits. Appropriate environmental information exists and is provided to those requesting it. Opportunities for reaching farmers through specialist journals and existing distribution networks currently under investigation.
6.3 	Work with the Lower Medway Internal Drainage Board, landowners, local authorities and others to complete a water vole survey of all marshland in the catchment.	Conservation and Recreation Officer Lower Medway Internal Drainage Board. KWT, EN, RSPB, LAs, landowners.	£20k		£8k	£8k	£4k		Contract has been prepared. Discussions on potential partners continuing.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
6.4 	Encourage landowners, farmers, FRCA and others to support the concept of the Isle of Sheppey as a mink free refuge for water voles.	Conservation and Recreation Officer Landowners, farmers, FRCA, EN, RSPB, KWT.	£3k	£1k	£1k	£1k			Action brought forward. Investigated feasibility of proposals with landowners and consulted through the Area Environment Group and the Water Vole National Technical Group. Two papers prepared and presented to Area Environment Group (AEG) in 1999/2000.
6.5 	Complete a botanical survey of Agency maintained earth defences to help formulate sensitive maintenance regimes.	Conservation and Recreation Officer EN, KWT, landowners.	£20k	£1.5k	£4k	U	*		EN have requested that the action be brought forward by one year. Liaison over collaborative project with various partners is on-going and financial input from English Nature and Medway Swale Estuary Project will reduce total Agency costs. Funding is to be sought.
6.6 	In collaboration with other partners, review of the extent of saltmarsh and eelgrass in the intertidal area of the estuary.	Team Leader Conservation and Recreation EN, MP, LAs.	U			*	*	*	No progress expected until next reporting year, though action may be brought forward to coincide with flood defence scheme and collaborative initiatives.
6.7 	Support the work of Groundwork Medway-Swale through financial contributions towards enhancement projects relevant to the aims of the Agency and subject to availability of resources.	FER Manager LAs, industry.	£25k	MP	£15k	£10k	*	*	Agency is working with Groundwork Medway Swale to develop a new country park at Grain Foreshore on the Isle of Grain. Site has important ecological and heritage interest and will form an important legacy. Collaborative project is funded through Biffa Landfill Tax Credit Scheme, English Heritage, English Nature and Agency's Heritage Lottery Fund (HLF) Award for Millennium Festivals.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
6.8 	Extend the network of Gauge boards across the catchment and implement procedures to monitor and record water information.	Team Leader Flood Defence Planning and Projects EN, landowners.	£3k	MP	£3k	MP	MP	MP	<p>A review of all Water Level Management Plans where the Agency is the operating authority has identified sites where rain gauges are required. Provision has been made within the Flood Defence Annual Maintenance Contract to install the gauge boards required.</p> <p>Procedures have been established to monitor and record water level data for each plan. These procedures identify the staff responsible for the maintenance of water levels and detail the specific data requirements.</p>


NORTH KENT ISSUE 7: Implementation of the Agency's responsibilities under the Habitats Directive and Habitats Regulations


The actions proposed in the Consultation Draft are now covered in the Kent Area LEAP. The Issue is kept in the North Kent LEAP due to the important habitats in the LEAP area. This includes evaluation of impacts on European Designated sites including three SPA sites partly or entirely within the LEAP area. The first phase of identifying authorisations that may affect sites is complete and national guidance is being developed on how to proceed further.

Actions and progress addressing this issue can be found under Issue 6 of the Kent Area LEAP.

NORTH KENT ISSUE 8: How the Agency implements it's role in managing the fishery in the Medway Estuary

The Agency's fisheries responsibility in the North Kent area is largely restricted to freshwater salmon, trout and eels. The Agency has been given the powers of a Sea Fisheries Committee within the Medway Estuary where an expanding fishery and the production of byelaws to regulate this fishing area will soon be required. In addition, the differing interpretation of the powers of the Agency resulting from the presence of historic fishing rights in part of the Medway Estuary and the requirement to enforce fisheries legislation will need to be resolved.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
8.1 	Investigate the Agency's responsibilities in relation to the Medway Estuary fishery and then produce an Estuary fishery management strategy.	Team Leader Fisheries Management and Enforcement. KESFC, ROFFA, Medway Council, LAs.	U(£5k in first year)		MP	U	*		The area is awaiting guidance as to how the Kent area should exercise its Sea Fisheries Powers.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
8.2 	Extend monitoring for allis and twaite shad in the tidal estuary.	Fisheries Scientist EN, KESFC, commercial anglers, CEFAS.	£18k	£6k	£6k	£6k			<p>5 sample sites examined and sampled in June and October 1999. Subsequent report on findings produced. Same samples sites will be sampled in October 2000.</p> <p>No evidence of adult or juvenile shad found.</p> <p>Local inquiries indicate that no shad have been caught in 1999.</p> <p>Returns made to KCC for the BAP update.</p>

NORTH KENT ISSUE 9: Impacts of water quality improvements and elevated water temperatures from industrial discharges on the productivity and nature conservation value of the Medway Estuary and Swale are unknown

The trend for improvements in the quality of sewage discharges into the Medway Estuary, and the Swale may result in lower nutrient loading and productivity in the estuary with an unknown impact on the nature conservation status. Discharges from power stations are resulting in elevated temperatures in parts of the estuary with impacts on flora and fauna that are not fully known. Actions addressing these issues are detailed in Issue 8 of the Kent Area LEAP.



Actions and progress addressing this issue can be found under Issue 8 of the Kent Area LEAP.

NORTH KENT ISSUE 10: The physical processes operating in and around the Medway Estuary and the Swale are not fully understood or agreed. This reduces the Agency's ability to carry out its flood defence and conservation duties effectively

Actions and progress addressing this issue can be found under Issue 1 and 20 of the Kent Area LEAP.

NORTH KENT ISSUE 11: The requirement for additional sewerage capacity in the future is likely to highlight current problems with combined sewer overflows

Overflows are connected to the sewerage system so that in storm events the excess water can overflow into the surface water system. Some combined sewer overflows (CSOs) in the Gillingham, Rainham and Chatham areas have been fitted with telemetry and screens. Telemetry enables overflow spill frequencies to be determined so that the need for further improvements can be assessed and screens prevent sewage-related solids from being taken through with the overflowing water. There are plans to extend the fitting of these to other CSOs.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
11.1 	Support and encourage the inclusion of telemetry on CSOs improvements on potentially high impact or sensitive locations in the catchment.	Team Leader Tactical Planning & Team Leader Water Quality Consenting SWS	£2k	MP	MP	*	*	*	Water Quality Consenting have determined a number of deemed consents, identifying which CSOs lack telemetry. The determination of deemed consents progresses.
11.2 	Liaise with SWS in order to prioritise the fitting of screens to problematic CSOs where funding from the AMP process has been agreed.	Team Leader Water Quality Consenting SWS	£4k	MP	MP	*	*	*	The inclusion of screens at Gillingham Pier outfall has been agreed under AMP III. No others agreements have been made as yet as the Agency assumed this work would be carried out under AMP I. Negotiations continue to address the shortfall on action undertaken by SWS, expected by Agency under AMP I. Seeking to resolve the lack of provision of screens on CSOs with SWS.

NORTH KENT ISSUE 12: There is currently a lack of data on the location and extent of contaminated land in the area


Actions and progress addressing this issue can be found under Issue 22 of the Kent Area LEAP.

NORTH KENT ISSUE 13: Sustainable waste management

Actions and progress addressing this issue can be found under Issue 24 of the Kent Area LEAP.

NORTH KENT ISSUE 14: The environmental impact of land application of paper sludge

The spreading of paper sludge on agricultural land is exempt from waste management licensing because of the presumption that it is a soil conditioner, and has agricultural benefit. Despite this, the Agency and Swale Borough Council have received complaints from local residents affected by the smell of paper sludge in storage, being spread on land, and in transit. A proposed waste to energy plant at Kemsley, which has been granted planning permission and IPC authorisation, may overcome the problem because most paper sludge could be incinerated there.

No.	Action	Responsibility	Projected Total Cost	Financial years (1 st April - 31 st March)					Progress/comments
				99/00	00/01	01/02	02/03	03/04	
14.1 	Work with operators to identify better working methods aimed at reducing problems of odour from stored and in-transit paper sludge.	Team Leader Scientific Support Parish councils, LAs, industry, local communities, operators.	£44k	£10k	£10k	£10k	£7k	£7k	<p>A protocol for the proper environmental operation of landspreading activities is currently under development with the main operator. New equipment and deodorising systems should assist.</p> <p>Waste recovery operations are likely to move away from a reliance on landspreading activities in 2001 with the construction of a waste to energy plant.</p> <p>All applications are assessed against criteria that address the odour problem on a site-specific basis.</p>

APPENDIX 1

KENT AREA LEAP PUBLICATION TIMETABLE

LEAP Area/Catchment	Document	Publication Date
Kent Area	Consultation Draft	September 1998
	LEAP Action Plan	September 1999
	Environmental Overview	September 1998
Medway	Consultation Draft	January 1999
	LEAP Action Plan	November 1999
	Environmental Overview	January 1999
North Kent LEAP	Consultation Draft	March 1999
	LEAP Action Plan	December 1999
	Environmental Overview	March 1999
Kentish Stour	Consultation Draft	May 1999
	LEAP Action Plan	March 2000
	Environmental Overview	May 1999
Darent	Consultation Draft	September 1999
	LEAP Action Plan	June 2000
	Environmental Overview	September 1999
Eastern Rother	Consultation Draft	December 1999
	LEAP Action Plan	Summer 2000
	Environmental Overview	December 1999

APPENDIX 2**ABBREVIATIONS**

AMP	Asset Management Plan
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
BAP	Biodiversity Action Plan
BC	Borough Council
BATNEEC	Best Available Technique Not Entailing Excessive Costs
BCI	Blue Circle Industries
BPEO	Best Practicable Environmental Option
CA	Countryside Agency
CAMS	Catchment Abstraction Management Strategies
CEFAS	Centre for Environment, Fisheries and Aquaculture Studies
CHaMPs	Coastal Habitat Management Plans
CLA	County Landowners Association
CMPs	Countryside Management Projects
COMAH	Control of Major Accident Hazards
CSO	Combined Storm Overflow
CTRL	Channel Tunnel Rail Link
DC	District Council
DPS	Development Planning System
DETR	Department of the Environment, Transport and Regions
EH	English Heritage
EN	English Nature
FRCA	Farming and Rural Conservation Agency
FERRAC	Fisheries, Ecology and Recreation Regional Advisory Committee
FWAG	Farming and Wildlife Advisory Group
GIS	Geographic Information Systems
GOSE	Government Office of the South East
HLF	Heritage Lottery Fund
KBG	Kent Bat Group
KESFC	Kent and Essex Sea Fisheries Committee
KOS	Kent Ornithological Society
KSBP	Kent Sustainable Business Partnership
KWT	Kent Wildlife Trust
IDB	Internal Drainage Board
ILFA	Import of Live Fish Act 1980
IPC	Integrated Pollution Control
IPPC	Integrated Pollution Prevention and Control
LA	Local Authority
LA21	Local Agenda 21
LEAP	Local Environment Agency Plan
LFDC	Local Flood Defence Committee
LGA	Local Government Association
LPA	Local Planning Authority
MAFF	Ministry of Agriculture, Fisheries and Food
MCA	Maritime and Coastguard Agency
MP	Medway Ports

MRF	Minimum Residual Flows
MRP	Medway River Project
MRS	Metal Recycling Site
MRUA	Medway River Users Association
MSA	Marine Safety Agency
MYA	Medway Yachting Association
NERC	National Environmental Research Council
NFU	National Farmers Union
NRA	National Rivers Authority - a predecessor body to the Environment Agency
NVZ	Nitrate Vulnerable Zone
OFWAT	Office of Water Services
PIR	Process Industry Regulation
RDA	Regional Development Agency
RLE	Rail Link Engineering
ROFFA	Rochester Oyster and Floating Fisheries Association
RQO	River Quality Objective
RSR	Radioactive Substances Regulation
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAFFO	Control of Pollution (Sludge, Slurry and Fuel Oil) Regulations 1991
SEAMP	South East Air Modelling Project
SEEDA	South East of England Development Agency
SEORP	South East Otters and Rivers Project
SNCI	Site of Nature Conservation Interest
SPA	Special Protection Area
SRB	Single Regeneration Bid
SSSI	Site of Special Scientific Interest
SUSTRANS	Charity promoting sustainable transport
SWS	Southern Water
UMIDB	Upper Medway Internal Drainage Board
UWWTD	EC Urban Waste Water Treatment Directive
WLMP	Water Level Management Plan
WWTW	Waste Water Treatment Works

APPENDIX 3

GLOSSARY

Abstraction

Removal of water from surface water or groundwater.

Abstraction Licence

Licence issued by the Agency under the Water Resources Act 1991 to permit water to be abstracted.

Aquifer

A layer of underground porous rock that contains water and allows water to flow through it

Authorisation

A legal licence issued by the Agency under the EPA 90 for industrial processes that use or produce potentially polluting substances in significant amounts.

Biodiversity

The variety of plant and animal life

Catchment

The total area of land which contributes surface water to a specified watercourse or water body.

Consent to discharge

A licence granted by the Agency to discharge effluent of specified quality and volume

Effective Rainfall

Rain remaining as runoff after all losses by evaporation, interception and infiltration have been allowed for.

Floodplain

Land adjacent to a watercourse over which water flows or would flow but for flood defences, in times of flood.

Flytipping

The unregulated and, hence, illegal, dumping of waste.

Groundwater

Water contained in underground rocks (aquifers).

Internal Drainage Boards

Autonomous public bodies under the control of board members (including those elected by agricultural ratepayers and those nominated by local authorities), with responsibilities and powers for flood defence on ordinary watercourses (non-Main Rivers) under the Land Drainage Acts.

Main River

All watercourses are designated as either "main river" (defined in maps held by the Environment Agency and MAFF) or ordinary watercourse ("non-main river"). The Agency has permissive powers to carry out works to protect land and property from flooding by improving the drainage of main rivers only, under the Water Resources Act 1991.

Potable water

Water of suitable quality for drinking.

Sea defences

Natural or man-made features protecting land below 5m AOD contour.

Site Of Special Scientific Interest

A site given statutory designation and protection by EN because it is particularly important, on account of its nature conservation value under the Wildlife and Countryside Act 1981 as amended.

Special Area for Conservation

Internationally important nature conservation site designated under the EEC Habitats Directive.

Special Protection Areas

Internationally important nature conservation sites designated under the EEC Wild Birds Directive. All SPAs are also SSSIs.

Sustainable development

'Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs' (from World Commission on Environment & Development, 1987).

SOUTHERN REGION LEAPS

MANAGEMENT AND CONTACTS:

The Environment Agency delivers a service to its customers, with the emphasis on authority and accountability at the most local level possible. It aims to be cost-effective and efficient and to offer the best service and value for money.

Head Office is responsible for overall policy and relationships with national bodies including Government.






Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol BS32 4UD

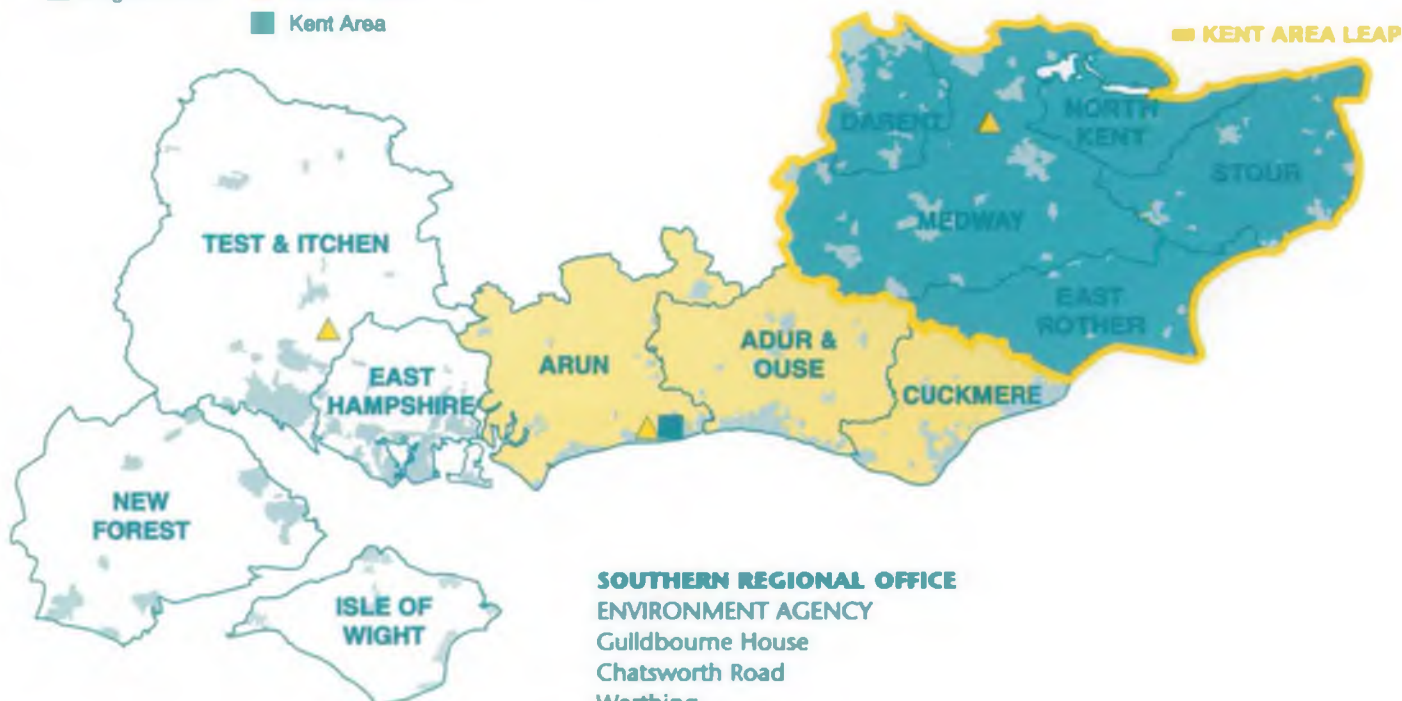
Tel: 01454 624 400 Fax: 01454 624 409

Internet World Wide Web www.environment-agency.gov.uk

ENVIRONMENT AGENCY REGIONAL OFFICES

Key:

-  Area Office
-  Hampshire & Isle of Wight Area
-  Regional HO
-  Sussex Area
-  Kent Area



SOUTHERN REGIONAL OFFICE

ENVIRONMENT AGENCY
Guldbourne House
Chatsworth Road
Worthing
West Sussex BN11 1LD
Tel: 01903 832000
Fax: 01903 821832

HAMPSHIRE & ISLE OF WIGHT AREA

ENVIRONMENT AGENCY
Wessex Business Park
Colvedene Court
Colden Common
Hampshire SO21 1WP
Tel: 01962 713267
Fax: 01932 841573
Isle of Wight
Tel: 01932 822986
Fax: 01932 822985

SUSSEX AREA

ENVIRONMENT AGENCY
Saxon House
Little High Street
Worthing
West Sussex BN11 1DH
Tel: 01903 703800
Fax: 01903 703817

KENT AREA

ENVIRONMENT AGENCY
Orchard House
Endeavour Park
London Road
Addington
West Malling
Kent MG19 5SH
Tel: 01732 875587
Fax: 01732 875057

For general enquiries please call your local Environment Agency office. If you are unsure who to contact, or which is your local office, please call our general enquiry line.

ENVIRONMENT AGENCY GENERAL ENQUIRY LINE

0645 333 111

The 24-hour emergency hotline number for reporting all environmental incidents relating to air, land and water.

ENVIRONMENT AGENCY EMERGENCY HOTLINE

0800 80 70 60

