

# local environment agency plan

## RIVER PARRETT

FIRST ANNUAL REVIEW

JUNE 1999

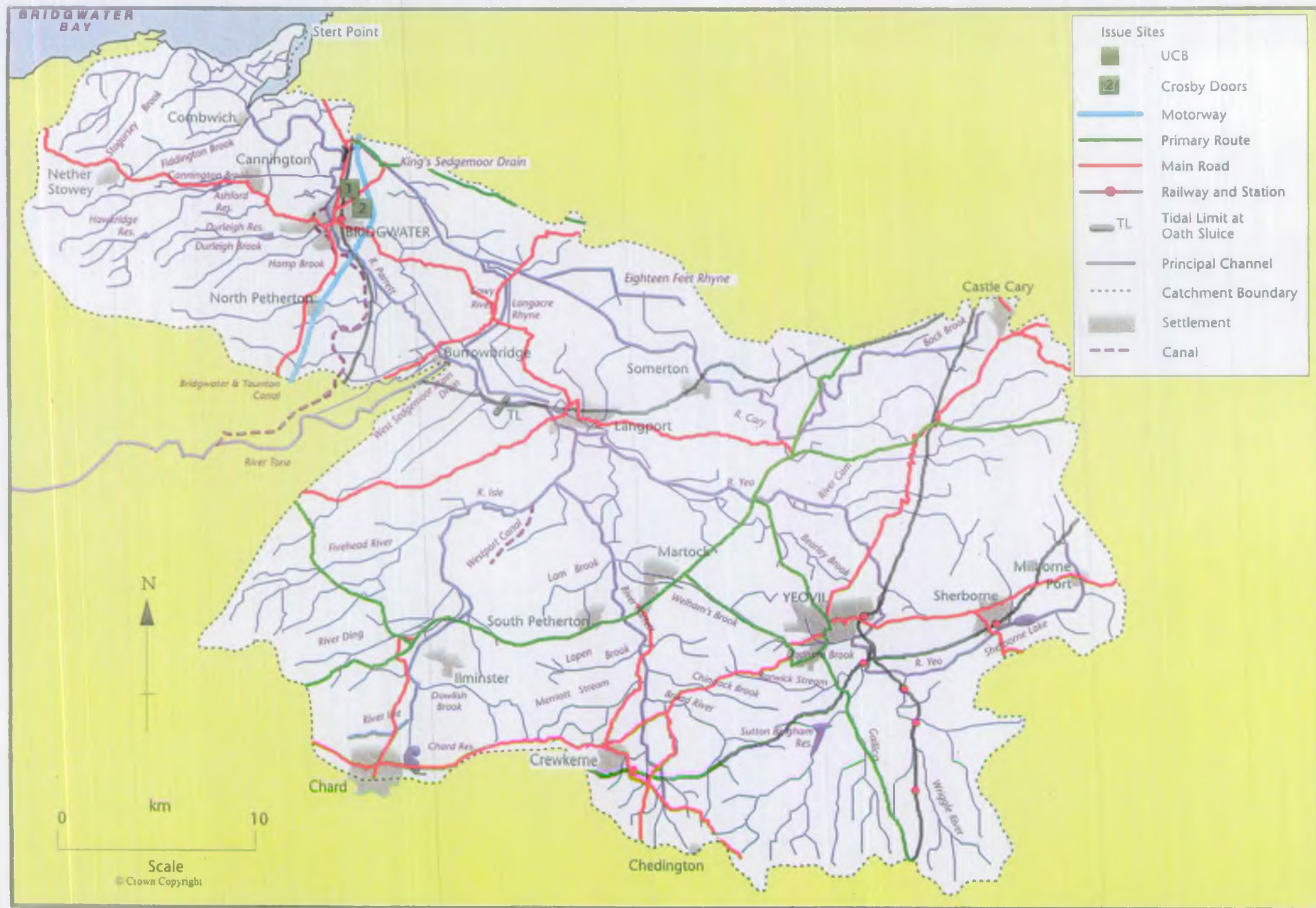


ENVIRONMENT  
AGENCY





Map 1 - The Parrett Catchment (Including Point-Located Issue Sites)



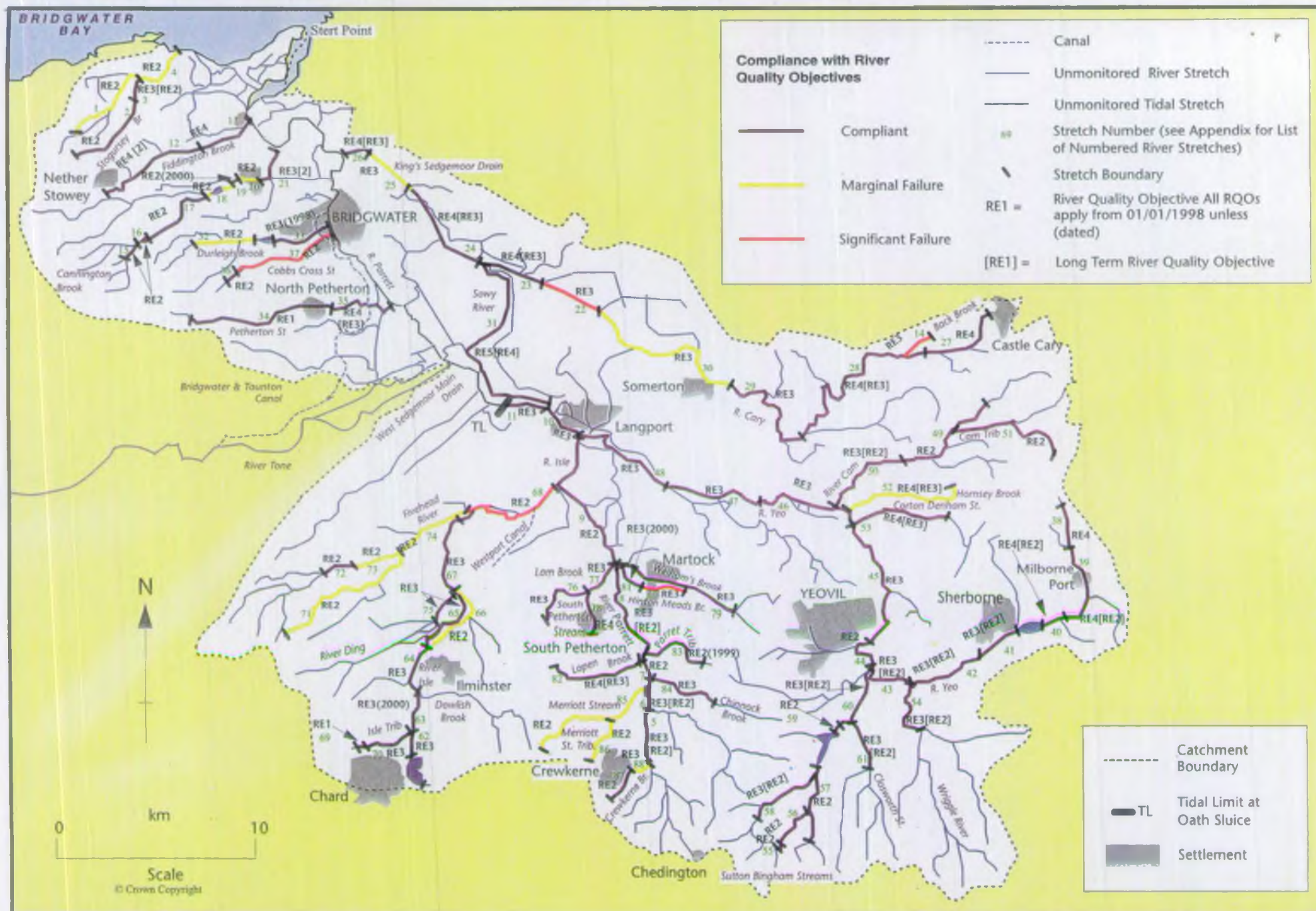
Information correct as of November 1997

River Parrett Local Environment Agency Plan





Map 2 - Compliance with River Quality Objectives (River Ecosystem Classification 1996)







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## 1. Introduction

This is the First Annual Review of the River Parrett Action Plan. It introduces the Environment Agency and summarises progress made with actions. Previous publications relating to this catchment contain more background detail, and this Review should be read in conjunction with these publications:

- River Parrett Catchment Management Plan Consultation Report – March 1997
- River Parrett Catchment Management Plan Action Plan – December 1997

### 1.1 The Environment Agency

The Environment Agency is a non-departmental public body established by the Environment Act 1995 and formed on 1 April 1996. We are sponsored by the Department of the Environment, Transport and the Regions (DETR) with policy links to the Welsh Office and the Ministry of Agriculture, Fisheries and Food (MAFF).

We have taken over the functions of our predecessors: the National Rivers Authority (NRA), Her Majesty's Inspectorate of Pollution (HMIP), the Waste Regulation Authorities (WRAs) and some parts of the DETR.

We provide a comprehensive approach to the protection of the environment by combining the regulation of air, land and water into a single organisation. We cannot work in isolation, but seek to educate and influence individuals, groups and industries to promote best environmental practice, and develop a wider public awareness of environmental issues.

Our Vision is:

- a better environment in England and Wales for present and future generations.

We will:

- protect and improve the environment as a whole by effective regulation, by our own actions and by working with and influencing others
- operate openly and consult widely
- value our employees
- be efficient and businesslike in everything we do.

Our Aims are:

- to achieve significant and continuous improvement in the quality of air, land and water, actively encouraging the conservation of natural resources, flora and fauna
- to maximise the benefits of integrated pollution control and integrated river basin management
- to provide effective defence for people and property against flooding from rivers and the sea
- to provide adequate arrangements for flood forecasting and warning
- to achieve significant reductions in waste through minimisation, reuse and recycling and to improve standards of disposal
- to manage water resources to achieve the proper balance between the needs of the environment and those of abstractors and other water users



- to secure, with others, the remediation of contaminated land
- to improve and develop salmon and freshwater fisheries
- to conserve and enhance inland and coastal waters and their use for recreation
- to maintain and improve non-marine navigation
- to develop a better informed public through open debate, the provision of soundly based information and rigorous research
- to set priorities and propose solutions that do not impose excessive costs on society.

We do not cover all aspects of environmental legislation and service to the general public. Your local authority deals with all noise problems; air pollution arising from vehicles, household areas, small businesses and small industries; planning permission (they will contact us when necessary); contaminated land issues (in liaison with ourselves); and environmental health issues.

## 1.2 The LEAP Steering Group

LEAP Steering Groups represent a range of interests who endorse the Consultation Report and Action Plan prior to public release. They monitor the implementation of the Action Plan and provide the Agency with specific advice on the importance of issues within the Plan area. They act as a communication link between the local community, the Agency and its committees and help to promote and develop initiatives of benefit to the environment within the catchment. This Annual Review of the River Parrett LEAP Action Plan is reported to the members of the River Parrett Steering Group. The Steering Group Members are:

Name	Representing
Mr Martin Venning	Wessex Water
Mr M Bowden	Industry
Mr K Haywood	Industry
Mrs Audrey Lennox	Sport and Recreation
Mr J J Mathrick	Angling
Mr J Hollington	South Somerset District Council
Mr D Rodwell	Sedgemoor District Council
Mr J Greenslade	Sedgemoor District Council
Mr D Taylor	Somerset County Council
Captain P Lee	Harbour Master
Mr S F Chedzoy	IDB
Mr Ian Clark	Taunton Deane Borough Council
Mr R Bradford	English Nature
Mr S F Westbrook	Wildlife Trust
Mr Richard England	NFU
Mr Jonathan Comer	Local Flood Defence Committee
Mr M Hellings	Waste Management
Mr Richard Dommett	British Waterways

## 2. Overview of the catchment

The River Parrett Catchment covers an area of approximately 1251 km<sup>2</sup> and has its source near Chedington to the south of Crewkerne. From its origin to Stert Point, Bridgwater where it enters the Severn Estuary, it is about 59 km long and falls 160 m to sea level. The River Parrett flows north, passing Martock, and is joined by the River Isle and River Yeo to the south of Langport, becoming tidal at Oath Sluice. The Parrett has an exceptionally long tidal reach. Much of the surrounding land is below high spring tide level. The flood tide carries large quantities of silt from the Severn Estuary which causes problems for channel management in the tidal reaches. The River Tone is a major tributary, which joins the tidal Parrett at Burrowbridge. The River Tone is the

subject of a LEAP (first annual review). The River Cary rises at Castle Cary and travels in a westerly direction before entering the King's Sedgemoor Drain at Henley Corner, and continuing across the Somerset Moors to join the tidal River Parrett downstream of Bridgwater at Dunball Sluice. There are further contributions below the tidal limit from a number of streams which have their headwaters on the east side of the Quantock Hills.

The middle and lower reaches of the Parrett and its tributaries have a very low gradient.

The Bridgwater and Taunton Canal leaves the Tone at Firepool Lock in Taunton. At Hamp in Bridgwater a weir was constructed under the British Rail Act 1969 which authorized the closure of Bridgwater Docks to enable surplus water to run into the tidal River Parrett. The canal ends at Bridgwater Docks, where a sluice is provided to allow a discharge into the River Parrett.

The catchment is predominantly agricultural. The Somerset Levels and Moors Environmentally Sensitive Area (ESA) is encouraging farmers to farm less intensively, with higher winter and spring water levels than over the past 50 years. Water levels are controlled by a system of rhynes and ditches and sluices, with pumping stations operated by the Environment Agency to return excess water to the rivers.

Much of the Parrett Catchment is designated as a valued landscape by both national (e.g. Area of Outstanding Natural Beauty (AONB)) and county (Special Landscape Area (SLA)) designations.

The landscape character of the catchment is heavily influenced both by the complex and distinctive geology and the activities of man. The dominant feature is the low lying moorland landscape, with its rectilinear pattern of man-made drainage channels, pollarded willows and scattered tree and shrub cover, expansive, open and relatively remote but essentially a controlled wetland. The area around Bridgwater Bay exhibits similar characteristics, with straight reed-filled ditches draining the open landscape of improved pasture and arable fields. The Quantock edge landscape with its steep-sided valleys supports a more intimate mosaic of oak woodlands and scrub, heathland and conifer plantations, the small fields divided by hedgerows with mature trees.

The catchment is very important for wildlife. Of over-riding importance is the internationally designated lowland wet grassland resource of the Somerset Levels and Moors, the largest remaining area of this habitat in Britain. Seven of the wetland Sites of Special Scientific Interest (SSSI) have recently been designated as a Special Protection Area (SPA)/RAMSAR site of international importance. These designations are because of their international importance for over-wintering wildfowl and breeding waders, see Section 3.1.

### 3. Summary of progress

#### 3.1 Conservation

The majority of our conservation activities have been centred on the internationally important wetland sites across the Somerset Levels and Moors part of the Parrett Catchment where, in partnership with other organisations, monitoring habitat trend and species distribution has been a priority. The review of the Somerset Levels and Moors Strategy, the production of Water Level Management Plans and work on a Raised Water Level Area at Moorlynch have all require significant conservation input. We will also be undertaking further water quality investigations within the rhine and ditch systems to determine optimum conditions to support the important biodiversity of the Levels and Moors.

We have developed a 5 year river restoration and conservation plan which assists prioritise specific river reaches throughout the North Wessex Area. Priorities within the River Parrett Catchment include the River Cary at Lytes Cary where works have been completed, and on the Langacre Rhine, where an action plan has been prepared and Agency is seeking partners.

We are also seeking to extend the coverage of River Habitat Survey (RHS) within the North Wessex Area. RHS is a method of assessing and evaluating the physical character and quality of river

habitat. Its main purpose is to provide river managers with sufficient information to sustain and enhance biodiversity. Together with its database RHS has also become a powerful tool for monitoring and predicting environmental impacts and habitat changes.

### 3.2 Development Pressures

To ensure the Agency fulfils its role in the land use planning and sustainable development debate we have issued all Local Planning Authorities with plans of indicative flood risk areas as part of our role as formal advisor to the Local Planning Authorities on Development and Flood Risk (Section 105 Plans).

We have an ongoing programme of producing detailed flood mapping which is targeted at areas likely to be allocated for development within the current round of Local Plan Reviews to 2011.

In conjunction with the Section 105 programme the Agency also advises Local Planning Authorities on appropriate planning policies to deal with flood risk and surface water disposal.

Of those Local Plan Reviews, there are three local planning authorities covering the majority of the Parrett catchment. Taunton Deane included Section 105 maps on their local plan Deposit maps. This is most helpful as it not only informs the reader of the plan on this matter but also demonstrates to other Local Planning Authorities that it can be practically achieved without overburdening the maps. Of last year, South Somerset who also placed their Local Plan on Deposit last year have not to date included the Section 105 maps. This resulted in an objection from the Agency. Continuing discussion will it is hoped lead to inclusion of the Section 105 flood plain data on the adopted plan's maps.

The third council with a considerable interest in the catchment is Sedgemoor District Council. The Agency has been encouraging Sedgemoor to include Section 105 data on their maps when they come forward with their deposit plan later this year (1999).

The Agency is seeking to influence all Local Planning Authorities in the take up and presentation of the Section 105 data. This helps inform the readers of the plan at an early stage of the problems likely to be encountered in such areas and therefore help dissuade developers from pursuing sites in such locations.

### 3.3 Fisheries

The River Parrett and the Bridgwater and Taunton canal are due to be surveyed for their fish populations in 1999 as part of our ongoing five year rolling survey programme. During 1997 and 1998 several thousand fish have been stocked into the River Parrett following some losses which occurred during August 1997 flooding event. Seasonal fishing for elvers on the River Parrett remains as popular as ever with several hundred licenses issued. Some successful prosecutions by the Agency have been taken for illegal fishing.

### 3.4 Flood Defence

The LEAP actions identified form only part of the Flood Defence commitment within the catchment. Revenue maintenance expenditure during 1998/99 is in excess of £400k and it is anticipated that this level of expenditure will be sustained over the coming year.

Core maintenance activities in the summer include weedcutting, application of herbicide and grasscutting of floodbanks whilst in the winter dredging, fence repairs and tree/blockage removal is carried out. Asset and water level management is carried out all year round. This involves operation and maintenance of pumping stations and sluices which maintain summer water levels and evacuate winter floodwater. Most of this work is carried out by the In-house Emergency Workforce who also routinely respond to flood events and pollution incidents whenever and wherever and wherever they occur.

There is currently an identified need for additional maintenance of mechanical and electrical equipment and a programme of refurbishment is ongoing. Asset inspections have also identified a need to increase maintenance of existing flood alleviation schemes to ensure they are secure



should their design flood occur. Locations in the Parrett catchment include Bridgwater, Langport, Yetminster as well as a number of other small villages.

Notable works last year include major dredging and floodbank restoration on the King Sedgemoor Drain as well as a number of emergency repairs to the Parrett floodbank at Burrowbridge. Further repairs are planned to safeguard the stability of the floodbank.

As a result of the floods last Easter the Bye Report has highlighted 85 actions. It has been agreed that these **will** be implemented and are now the highest priority for Area Flood Defence. There is a significant resource implication and although there may be an impact on the progress of the existing LEAP actions. Some additional funding has been secured to implement these actions.

### 3.5 Recreation

The Parrett Trail has been established as a medium distance walking route, which follows the Parrett Valley from its source to the sea. With its accompanying interpretative guide it now sets a proven standard for other catchments. As cycleways are developed in the catchment sensitive routing along riverbanks is providing important links in the local network. In Bridgwater we are working with others to enhance the habitat of the tidal river whilst raising public awareness of the value and significance of the river corridor here and elsewhere.

### 3.6 Water Quality

We monitor 421.1km of rivers in the Parrett LEAP area. The chemical quality of these rivers is monitored annually and their biological quality is measured quinquennially. In 1998, 36.2% of monitored river lengths in the LEAP area were of good or very good chemical quality, 60.4% of fairly good or fair quality and 3.3% of poor quality.

Agricultural issues relating to the River Cary have proceeded this year with a farm campaign and initial desk studies have been completed for the other identified Catchments feeding the River Wriggle and Sutton Bingham Stream. Improvements are continuing at some farms previously identified as having problems.

An investigation into the upper part of the River Yeo above Thomford, has been undertaken and identified some issues, which require further attention. There are possible agricultural inputs upstream of Sherborne but more conclusive evidence that low flow conditions in the drier summer period are exacerbating the effects of effluent from Milborne Port and Sherborne STWs on the river quality and causing recent non-compliance with the EC Freshwater Fisheries Directive and failure to achieve it's long term quality objective.

An initial report into the impact Crewkerne STW has been produced and improvements at Chart STW are now complete.

There has been an initial look into problems relating to low flows and eutrophication in the Kings Sedgemoor Drain and further work is proposed for this summer (1999). Similarly, a further investigation is planned to review the low summer flows in the Fivehead River.

A point source problem has been identified and rectified in the Merriot Stream and we anticipate an improvement being identified in the subsequent routine monitoring of this river stretch.

There has been liaison with UCB and progress towards consenting the discharges arising from the site. Consents are due to be issued in the next couple of months.

### 3.7 Water Resources

The Government's water watchdog OFWAT sets out the amount companies can charge through the periodic review process. Through this process the water companies are required to provide a resource plan and submit to OFWAT its estimates of costs for meeting quality and environmental standards. As part of the same process the Environment Agency require the water companies to complete resource plans which look 25 years ahead. This is because as the Agency is responsible

for granting licences to abstract water and therefore needs to know how much the water they are going to need.

OFWAT is undertaking a review of water prices that will result in a review of improvements required for the period 2000 – 2005; the outcome of this will be Asset Management Plan 3. The Agency's proposals for the National Environment Programme for water companies 2000 – 2005 was submitted to government in May 1998 in the document 'A Price Worth Paying'. Following consultation with the Agency and OFWAT the Department of the Environment, Transport and the Regions published guidance in September to OFWAT for the environmental and quality objectives to be achieved by the water industry in the period 2000- 2005 in the report 'Raising Quality'. This guidance has now been translated into detailed environmental obligations which have been agreed by the Secretary of State for each water company.

AMP3 also required the water companies to revise their water demand forecasts, review their resource availability and consider any potential resource options to meet forecasted deficits within the planning horizon. In parallel with this the Agency required the water companies to complete Water Resource Plans by March 1999. The water resource plans require water companies to produce demand forecasts and compare them with their available resources for up to the next 25 years. Potential demand or resource-management options, including leakage reduction, have to be considered, and, if necessary, any resource-development options which may be required to meet the forecast demand. These plans have been received and a report on them, 'Planning Public Water Supplies', was sent to DETR in June 1999. The companies will be expected to update these plans on an annual basis and the report also details the main changes the Agency wishes to see incorporated in the revision of the plans.

### 3.8 Waste

We have contributed to the National Waste Production Survey by surveying over 360 companies in the North Wessex Area, in order to provide data on the types and quantities of waste arising, and the method, location and cost of their management. This data will be used in the production of a statutory National Waste Strategy, due to be published in 2000. The Strategy will be the Government's statutory strategy on waste management for all local authorities and other public bodies. It will provide definitive guidance on best practice for waste minimisation and disposal.

In addition, the National Waste Production Survey visits allowed further opportunity in providing many Companies with waste minimisation and recycling advice and guidance, throughout the North Wessex Area. In support of waste minimisation and reduction in Industry the Agency has produced a number of guidance documents which include, the *North Wessex Area Industrial and Commercial Waste Minimisation and Recycling Directory*, and the *Waste Minimisation – An Environmental Good Practice Guide For Industry*. Both of these documents were circulated widely during survey visits to many businesses in the Parrett catchment, as well as throughout the North Wessex Area.

Provision of advice and guidance to local groups, on waste minimisation is ongoing. The household waste recycling rate for the county of Somerset stood at 13.64% for 1998/99, working towards the Government's target of 25% by Year 2000 – *ref. Making Waste Work, Government's White Paper*. We are currently involved in investigating the establishment of a cross-functional forum for Somerset, in partnership with County, District and Non-Government Organisations to promote a holistic approach to environmental issues, to specifically include business environmental management and conservation programmes. Area staff, in contribution to the Agency's top ten target regarding waste minimisation, helped four North Wessex companies make substantial savings through reduction and minimisation of waste.

Development of a Regional Strategy to identify current and future extent of the types and quantities of waste and management facilities is underway, with a final report to be produced this financial year. We are currently collating accurate waste management data for the North Wessex Area to contribute to the Regional Waste Strategic Management Report, which will form part of the South West Region's contribution to the National Waste Strategic Management Report, to be published in June 2000.

The Department of the Environment White Paper *Making Waste Work* (1995) sets out the Government's policy framework for the management of waste. It sets out ways in which waste can be managed in a more sustainable way, and sets targets for achieving that aim.

This strategy is based on three key objectives: reducing the amount of waste that society produces, making the best use of the waste produced, and choosing waste management practices which minimise the risks of immediate and future harm to the environment and to human health.

Two primary targets have been set within this strategy: to reduce the proportion of controlled waste going to landfill from the current 70% to 60% by 2005, and to recover 40% of municipal waste by 2005. A number of subsidiary targets also include one of recycling and composting 25% of household waste by 2000.

The Department of Environment, Transport and the Regions Consultation Paper *Less Waste More Value* (1998) provides the latest figures against these targets for municipal waste only in Year 1996/97 – recycling and energy recovery of municipal waste stood at around 14%, with recycling of household waste at around 7.5%.

The Producer Responsibility Regulations were introduced in 1997 to place responsibility on some businesses that handle packaging to recover and recycle certain proportions of packaging materials. This initiative will be a key tool for promoting the recovery of value from waste. It is designed to ensure that industry assumes an increased share of the responsibility for the waste arising from the disposal of its products. The target is to recover 50-65% of packaging waste by 2001.

We will play a lead role in implementing, monitoring and enforcing this legislation. Businesses will have to register with us and provide data by August 1997, start to meet interim recovery and recycling targets in 1998-99, meet an interim recycling target by 2000 and full targets by 2001. All businesses involved in the packaging chain will share the responsibility if they:

- have a turnover of more than £5 million and handle more than 50 tonnes of packaging each year during 1997-99
- have a turnover of more than £1 million and handle over 50 tonnes of packaging materials each year from the year 2000

Landfill Tax, introduced by the Government in 1996, is one of the key policy instruments for achieving one of the primary targets set in its White Paper *Making Waste Work*. For inert wastes landfill tax has remained at £2 per tonne + vat. However, the tax levied for all other wastes disposed of at landfill sites has increased (April 1999) to £10 per tonne + vat and there are fears that this could lead to an increase in fly-tipping.

### **3.9 Somerset Levels and Moors**

The Somerset Levels and Moors Water Level Management Strategy Review Steering Group through the Levels and Moors Partnership, issued a draft action plan for public consultation between 2 February and 7 May 1999.

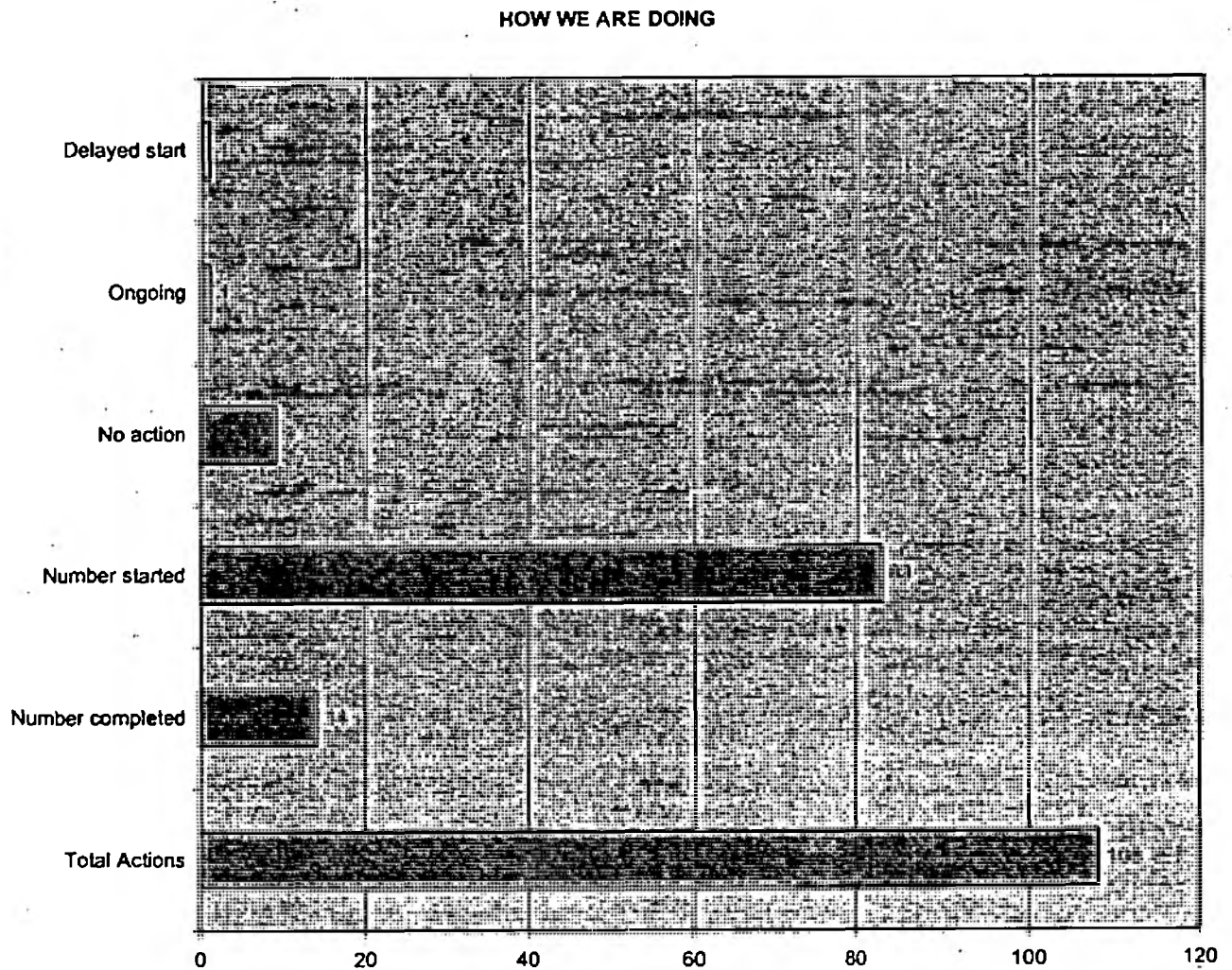
A companion document covering the response to the first consultation period in 1998 has also been produced.

Implementation of the Action Plan over the next five years will be through a partnership between the Agency and other groups represented on the Steering Group.



### 3.10 How we are doing

This chart is a breakdown of our progress with the actions from the publication of the Action Plan in December 1997 until the end of January 1999.



Some actions are ones we will carry out every year and so will never be completed. We will however report progress on the results of these actions.

#### 4. Action Plan Monitoring Report

The following tables indicate progress on specific actions. The costs shown are estimated and are £k i.e. in thousands of pounds. For a fuller account of the issues please see The River Parrett Action Plan (December 1997) and for more general supporting information about the catchment please see The River Parrett Consultation Report (March 1997).

##### Action Plan Monitoring Report.Parrett

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.1. Significant non-compliance with RE2 (2000) on Cannington Brook - Blackmore Farm to Bradley Green (19) - We will carry out a farm pollution campaign and/or the monitoring of consented discharges.	Agency	○	●	○	○	○	○	1	In 1997 the quality of this stretch improved significantly. Provided our monitoring shows the improvement is sustained no survey work will be carried out.
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.2. Marginal non-compliance with long term RQO of RE3 on Cary - Lovington to Higher Farm (28) - A farm pollution campaign will be carried out.	Agency	○	●	●	●	○	○	0.5	Farm campaign was carried out in 1998/99, and an inspection to ensure the necessary improvements are carried out, will be undertaken in 1999 (cost £2k). We will assess the monitoring results at the end of 1999/00 (new cost of £0.5k.)
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.3. Marginal non-compliance with long term RQO of RE2 on Yeo - Milborne Port to Upstream Sherborne Lake (40) - Further investigations into the actual sources of this pollution are still to be made.	Agency	●	●	●	●	○	○	1	An investigation into sources of pollution was carried out in January 1998/99 (cost £0.5k) and a report has been produced. We will do further investigations into sources of agricultural runoff and other inputs in 1999/00.
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.4. Marginal non-compliance with long term Agency RQO of RE2 on Yeo - Milborne Port to Upstream Sherborne Lake (40) - Agricultural inputs from Purse Caundle will be investigated.	Agency	●	●	●	●	○	○	0.5	An investigation into sources of pollution was carried out in January 1998/99 (cost £0.5k) a report has been produced. We will do further investigations into sources of agricultural runoff and other inputs in 1999/00.
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.5. Marginal non-compliance with long term RQO of RE2 on Wriggle - Confluence with Beer Hackett Stream to Confluence with Yeo (54) - Recent farm pollution prevention campaign will be followed up with regulation of farm discharges to Beer Hackett Stream.	Agency	●	●	●	●	○	○	0.5	A review of water quality was carried out, together with a follow up to an earlier farm campaign in 1998/99. A survey was carried out which shows that biological quality is high throughout the stream. We have programmed farm visits for the winter of 1999/2000 (cost £0.5k).
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.6. Historic marginal non-compliance with long term RQO of RE2 on Closworth Stream - Princes Place to Confluence with Sutton Bingham Stream (61) - We will investigate sources of agricultural runoff and take steps to reduce inputs to the stream.	Agency	●	●	●	○	○	○	1.5	In 1999/00, a farm campaign will be undertaken, together with an assessment of agricultural runoff. We will scrutinise water quality monitoring data to assess the effectiveness of improvements (1999/01).
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.7. Historic marginal non-compliance with long term RQO of RE2 on Closworth Stream - Princes Place to Confluence with Sutton Bingham Stream (61) - We will promote Code of Good Agricultural Practice.	Agency	○	○	●	●	○	○	1.5	A farm campaign will be carried out in 1999/00. We will scrutinise water quality monitoring data to assess the effectiveness of improvements in 2000/01.

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.8. Historic marginal non-compliance with RE3 on Chinnock Brook - East Chinnock to Confluence with Parrett (84) - We will ensure the farms identified install the necessary improvements in 1997.	Agency	⊙	⊙	⊙	⊙	⊙	⊙	0.5	Some farmers carried out improvements in 1998/99. Water quality monitoring shows RE2 currently being achieved. We will continue to monitor in 1999/00.
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.9. Historic marginal non-compliance with RE3 on Chinnock Brook - East Chinnock to Confluence with Parrett (84) - We will continue to monitor the brook to assess the effectiveness of the farm improvement.	Agency	⊙	⊙	⊙	⊙	⊙	⊙	0.5	Some farmers carried out improvements in 1998/99. Water quality monitoring shows RE2 currently being achieved. We will continue to monitor in 1999/00.
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.10. Pesticide residues in Durlough Reservoir catchment - Liaise with Wessex Water Services Ltd (WWSL) over results of their pesticide monitoring to determine how effective recent pollution measures have been.	WWSL, Agency	⊙	⊙	⊙	⊙	⊙	⊙	2	We have liaised closely with and no further pesticide problems have arisen. Our follow up survey has continued to raise awareness amongst farmers of the need to apply and store pesticides with care.
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.11. Widespread evidence of nutrient enrichment on Stogursey Brook, Cannington Brook, Lam Brook, Upper Parrett, Upper Yeo and tributaries. - We will investigate the sources of nutrient inputs to these watercourses and take appropriate action depending on the source.	Agency	⊙	⊙	⊙	⊙	⊙	⊙	4	Evidence indicates problems due to diffuse nitrate pollution from winter runoff. Stogursey Brook has the potential to be classified as a Nitrate Vulnerable Zone, but at least a year's worth of reliable data is required before making a decision. An investigation will be carried out on the upper Yeo as part of 1.3. We will carry out investigations on the upper Parrett and the Lam Brook in 1999/00.
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.12. Marginal non-compliance with long term RQO of RE3 on Corton Denham Stream - Rinton to Confluence with Yeo (53) - Point source agricultural pollution identified at Staffords Green.	Agency	⊙	⊙	⊙	⊙	⊙	⊙	0.6	Farm improvement scheme completed in 1998. The North Wessex investigation team produced a report in February 1999 on the water quality of the Corton Denham Stream. The problem is resolved.
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.13. Marginal non-compliance with long term RQO of RE2 on Sutton Bingham Stream - Higher Halstock to Downstream Sutton Bingham Reservoir (58) - Point source agricultural input identified. Improvement scheme in progress.	Agency	⊙	⊙	⊙	⊙	⊙	⊙	0.6	A farm improvement scheme is being implemented. We will scrutinise water quality monitoring data to assess the effectiveness of improvements (1999/00).
<b>1. Impact of Farming Activities on Water Quality...</b>									
1.14. Non-compliance with EC Freshwater Fish Directive total ammonia standard on King's Sedgemoor Drain - Continue monitoring of piggery at Greinton to measure impact of remedial action. Investigate other possible sources.	Agency	⊙	⊙	⊙	⊙	⊙	⊙	0.6	Our monitoring has not shown the source of non-compliance (cost £0.4k). Discussions with the piggery have led to improved management of their effluent and our approval for their new effluent containment system (22-01-99). We will carry out further investigation into the impact of summer and winter penning on water quality in 2000/01.



Issues and Actions	Resp Body	97 98 99 00 01 02	Cost	Progress
<b>1. Impact of Farming Activities on Water Quality...</b>				
1.15. Non-compliance with EC Surface Water Abstraction Directive nitrate standard at Ashford Reservoir - Investigate source of farm runoff and take appropriate action.	Agency	○ ◎ ○ ○ ○ ○ ○	0	Ashford Reservoir was compliant with the Directive in 1996 and 1997 so this is not now regarded as an issue.
<b>2. Impact of Sewage Treatment Works (STWs) on Water Quality...</b>				
2.1. Marginal non-compliance with long term RQO of RE2 on Parrett - Confluence with Crewkerne Brook to Confluence with Broad (5). Non-compliance probably due to Crewkerne East STW. Further survey work to be undertaken 1997/early 1998 on Crewkerne Stream. If necessary seek improvements to Crewkerne STW.	Agency	○ ○ ◎ ○ ○ ○ ○	2.5	Survey completed in 1998/99 (cost £3K). Initial findings suggest improvements to Crewkerne STW are needed. We expect this work to be carried out as part of WWSL's AMP3 investment programme (2000 to 2005). It will include increasing flows to full treatment and a tightening of the consent conditions. Further investigations will be carried out to monitor the impact of Crewkerne STW and the nearby trading estate during rainfall events (in 1999/00). Also in 1999/00 we will carry out a pollution prevention survey of the trading estate.
<b>2. Impact of Sewage Treatment Works (STWs) on Water Quality...</b>				
2.2. Marginal non-compliance with RQO of RE3 (2000) on Isle - Chard STW to Dundole Farm (63). - Non-compliance most likely due to Chard STW. New works currently being constructed by WWSL to be up and running November 1998.	Agency	○ ○ ◎ ○ ○ ○ ○	0.5	WWSL have completed construction of their new Chard STW and this is now operational (22-01-99). We will monitor (1999/00) the watercourse to assess the impact of the new works.
<b>2. Impact of Sewage Treatment Works (STWs) on Water Quality...</b>				
2.3. Marginal non-compliance with RQO of RE2 on Isle - Upstream Ilminster Bifurcation to Downstream Ilminster Bifurcation (65). Non-compliance probably due to the influence of Ilminster STW. Desk study to be undertaken. If necessary seek improvements to Ilminster STW.	Agency	○ ○ ◎ ○ ○ ○ ○	1	Desk study complete (22-01-99), but impact of Ilminster STW not proven. In 1999/00 we will carry out monitoring and investigate further to identify the causes of non-compliance.
<b>2. Impact of Sewage Treatment Works (STWs) on Water Quality...</b>				
2.4. Significant non-compliance with RQO of RE3 (2000) on Hinton Meads Brook - Hurst to Confluence with Welhams Brook (81). Non-compliance caused by Martock STW which currently discharges to Hinton Meads Brook. Martock STW outfall to be relocated to the River Parrett in 1998.	WWSL	○ ○ ◎ ○ ○ ○ ○	0.4	WWSL have completed the re-location of Martock STW outfall (1999). We will monitor (1999/00) the watercourse to assess the impact of the new works and whether Hinton Meads Brook complies with its RQO.
<b>2. Impact of Sewage Treatment Works (STWs) on Water Quality...</b>				
2.5. Marginal non-compliance with RQO of RE3 on Crewkerne Brook - Crewkerne Brook - Crewkerne to Confluence with Parrett (88). Non-compliance probably due to Crewkerne East STW. Further survey work to be undertaken this year/early 1998 on Crewkerne Stream. If necessary seek improvements to Crewkerne STW.	Agency	○ ◎ ◎ ○ ○ ○ ○	1	Crewkerne East sewage treatment works is in Wessex Water Services Ltd's (Asset Management Plan) AMP3 for secondary treatment under the E.C. Urban Waste Water Treatment Directive in order to meet the RQO for this stretch (see Action 2.1)

Issues and Actions	Resp Body	97 98 99 00 01 02	Cost	Progress
<b>2. Impact of Sewage Treatment Works (STWs) on Water Quality...</b>				
2.6. Marginal non-compliance with long term RQO of RE2 on Cannington Brook - Cannington to Confluence with tidal Parrett (21). Non-compliance possible due to Cannington STW. Desk study to be undertaken. If necessary seek improvements to Cannington STW.	Agency	⊙ ⊙ ○ ○ ○ ○	1.5	In 1997 the quality of this stretch improved, and if maintained will result in compliance with the long-term RQO. Also we expect improvements to Cannington STW to be carried out as part of WWSL's AMP3, including a tightening of the consent conditions.
<b>2. Impact of Sewage Treatment Works (STWs) on Water Quality...</b>				
2.7. Possible future non-compliance with long term RQO of RE3 on Petherton Stream - North Petherton to Confluence with tidal Parrett (35). North Petherton STW may, in the future, cause long term RQO non-compliance. The risk needs to be assessed and if necessary improvements will be sought to North Petherton STW.	Agency	⊙ ⊙ ○ ○ ○ ○	1.7	We expect improvements to North Petherton STW to be carried out as part of WWSL's AMP3, including a tightening of the consent conditions.
<b>3. Unknown Causes of Poor Water Quality...</b>				
3.1. Biological class d site on the South Petherton Stream at East Lambrook. We will investigate the cause.	Agency	○ ○ ○ ⊙ ○ ○	1	Assessment of water monitoring results indicate South Petherton STW is complying with its consent. Further monitoring has been undertaken and the results are being assessed. (99/00) A biological survey is planned for Spring 2000. (00/01)
<b>3. Unknown Causes of Poor Water Quality...</b>				
3.2. New non-compliance: Marginal non-compliance with RQO of RE3 on Cary - Somerton STW to Henley (30). Investigate the cause of the non-compliance.	Agency	○ ○ ⊙ ○ ○ ○	0.5	Initial investigations indicate summer penning as a possible cause of low Dissolved Oxygen (D.O.) A full study is planned for summer 1999.
<b>3. Unknown Causes of Poor Water Quality...</b>				
3.3. New non-compliance: Significant non-compliance with RQO of RE2 on Isle - confluence with Fivehead to Confluence with Parrett (68). Investigate the cause of the non-compliance.	Agency	○ ○ ⊙ ○ ○ ○	0.4	Initial investigations indicate summer penning as a possible cause of low Dissolved Oxygen (D.O.) A full study is planned for summer 1999.
<b>3. Unknown Causes of Poor Water Quality...</b>				
3.4. New non-compliance: Marginal non-compliance with RQO of RE2 on Fivehead - Hatch Beauchamp to Confluence with Blackwater Tributary (73). Investigate the cause of the non-compliance.	Agency	○ ○ ⊙ ○ ○ ○	0.4	Initial investigations indicate summer penning as a possible cause of low Dissolved Oxygen (D.O.) A full study is planned for summer 1999.
<b>3. Unknown Causes of Poor Water Quality...</b>				
3.5. New non-compliance: Marginal non-compliance with RQO of RE2 on Fivehead - Hatch Green/Blackwater Tributary Confluence to Confluence with Isle (74). Investigate the cause of the non-compliance.	Agency	○ ○ ⊙ ○ ○ ○	0.4	Initial investigations indicate summer penning as a possible cause of low Dissolved Oxygen (D.O.) A full study is planned for summer 1999.

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>3. Unknown Causes of Poor Water Quality...</b>									
3.6. New non-compliance: Marginal non-compliance with RQO of RE2 on Merriot Stream - Upstream Hinton Park Farm to Confluence with Parrett (85). Investigate the cause of the non-compliance.	Agency	○	○	●	○	○	○	0.4	Point source discharge found and rectified. Thought to be probable cause of Biochemical Oxygen Demand (BOD) non-compliance. Review results to confirm improvement in water quality.
<b>3. Unknown Causes of Poor Water Quality...</b>									
3.7. New non-compliance: Marginal non-compliance with long term RQO of RE2 on Fiddington Brook - Source to Hornhill (2). Investigate the cause of the non-compliance.	Agency	○	○	●	○	○	○	0.4	In 1997 the quality of this stretch improved, and if maintained will result in compliance with the long-term RQO. No problem point discharges have been identified to date, and so the non-compliance may be partly due to diffuse pollution. Also, we expect improvements to Nether Stowey STW to be carried out in Wessex Water Services Ltd's AMP3, including a tightening of the consent conditions.
<b>3. Unknown Causes of Poor Water Quality...</b>									
3.8. New non-compliance: Marginal non-compliance with RQO of RE2 on Cannington Brook - Ashford Reservoir to Blackmore Farm (18). Investigate the cause of the non-compliance.	Agency	○	○	●	○	○	○	0.4	Our evidence to date suggests the problem may be due to diffuse sources of farm waste. We will undertake a farm survey in spring 1999.
<b>3. Unknown Causes of Poor Water Quality...</b>									
3.9. New non-compliance: Marginal non-compliance with RQO of RE2 on Durlough Brook - Pightley to U/S Durlough Reservoir (32). Investigate the cause of the non-compliance.	Agency	○	●	○	○	○	○	0.4	The non-compliance is due to reduced dissolved oxygen levels in the stream. There is no evidence of organic polluting sources and we consider the low oxygen levels to be due to natural conditions.
<b>3. Unknown Causes of Poor Water Quality...</b>									
3.10. Non-compliance with EC Dangerous Substances Directive List II, copper Environmental Quality Standard at receiving water downstream of Walpole Drove Waste Disposal site. We will increase the sampling frequency and fieldwork inspections to monitor the leachate discharge.	Agency	○	○	●	○	○	○	0.25	Frequency of monitoring of Walpole leachate discharge is to be increased. Assessment of results indicate that Walpole landfill is not the source of the copper. Continue to monitor landfill discharge and investigate other possible sources of copper.
<b>3. Unknown Causes of Poor Water Quality...</b>									
3.11. New non-compliance: Significant non-compliance with RQO of RE2 on Cobbs Cross Stream - Goathurst downstream Knoll Farm to Confluence with Parrett (37). Investigate the cause of the non-compliance.	Agency	○	●	○	○	○	○	0.4	We are currently investigating the cause of this non-compliance. Our initial view is that there have been changes in landuse to more intensive arable farming downstream of Goathurst, and so the change in quality may be due to diffuse agricultural pollution.
<b>3. Unknown Causes of Poor Water Quality...</b>									
3.12. Marginal non-compliance with long term RQO of RE2 on Sutton Bingham Stream - Higher Halstock to Downstream Sutton Bingham Reservoir (58). Investigate the cause of the non-compliance.	Agency	○	○	●	●	○	○	0.6	A farm improvement scheme is being implemented. We will scrutinise water quality monitoring data to assess the effectiveness of improvements (1999/00).



Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>3. Unknown Causes of Poor Water Quality...</b>									
3.13. New non-compliance: Significant non-compliance with RQO of RE3 on the Back Brook - Downstream Dimmer Waste Disposal Site to Confluence with Cary (14). Investigate the cause of the non-compliance.	Agency	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	0.4	Agricultural discharge downstream of landfill site has been rectified (98/99). Dimmer landfill site is improving its leachate treatment facilities and its discharge is to be relocated to the River Cary (99/00). Water quality monitoring results are to be assessed. (99/00)
<b>3. Unknown Causes of Poor Water Quality...</b>									
3.14. New non-compliance: Marginal non-compliance with RQO of RE4 and significant non-compliance with long term RQO of RE3 on Hornsey Brook - Source to Confluence with Yeo (52).	Agency	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	0.5	Assessment of water quality results indicate copper failure has not reoccurred since 1997. Dissolved Oxygen has complied with RE4 and only been a marginal non-compliance with long term RE3. Continue to assess monitoring results.
<b>4. Impact of Industrial Discharges on Water Quality...</b>									
4.1. Marginal non-compliance with RQO of RE2 on Cannington Brook - Bradley Green to Cannington (20). We will carry out a survey and improvements will be recommended to potato grading plant.	Agency	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	0.4	No direct sources of pollution have been detected to date. We are continuing with our investigations.
<b>4. Impact of Industrial Discharges on Water Quality...</b>									
4.2. Effect on tidal River Parrett of combined discharges from the UCB Cellophane site in Bridgwater. Reduction of sulphide content of discharge at source by March 1998.	UCB Cellophane	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	0	UCB achieved and have maintained a significant reduction in effluent sulphide content from March 1998, such that the sulphide level is now less than 3mg/l, only about a third of what it was previously. Nevertheless it is necessary to protect the receiving water by reducing the sulphide further, and a consented/permited figure of less than 1mg/l is expected to be implemented from January 2001.

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>4. Impact of Industrial Discharges on Water Quality...</b>									
4.3. Effect on tidal River Parrett of combined discharges from the UCB Cellophane site in Bridgwater. Separation and re-routing of sewage and non-UCB effluents is being examined for feasibility and costs. Otherwise EC Urban Wastewater Treatment Directive will apply.	Agency, Wessex Water, UCB								In early June 1999, the existing consent was determined and a new Water Resources Act consent was issued which reflects and progresses improvements in the discharge of effluent from this site. Conditions include the removal of sewage by December/January 2000, new sulphide limits and clauses to reflect the true nature of the discharge. Wessex Water Services have consequently separated the flows and given trade effluent consents from each individual company which will result in greater control. The IPC Authorisation from UCB's cellophane production will be updated to reflect the new Water Resources Act consent conditions. In environmentally protective conditions for Chemical Oxygen Demand and pH.
<b>4. Impact of Industrial Discharges on Water Quality...</b>									
4.4. Effect on tidal River Parrett of combined discharges from the UCB Cellophane site in Bridgwater. Continued assessment of impact of discharge on tidal River Parrett to confirm UCB modelling conclusions.	Agency							2	An EA survey of the tidal river was carried out in 1998 which gave useful results for the setting of future standards of discharge. Modelling needs to be undertaken by our Regional Tidal Waters Group in 1999 to define the standards required, taking into account other inputs. Some limited additional river survey work will also be carried out to follow up the 1998 study. The modelling will cost approx £0.4k and the survey £1.6k.
<b>4. Impact of Industrial Discharges on Water Quality...</b>									
4.5. Effect on tidal River Parrett of combined discharges from the UCB Cellophane site in Bridgwater. Seek further reductions in UCB effluent to using Best Available Technology Not Entailing Excessive Cost (BATNEEC).	UCB, Agency							0	'EA has determined the deemed consents held by Wessex Water Services Ltd for the final discharges, with the aim of further progressively reducing the combined effect on the receiving water in terms of acidity, sulphide and COD load'. Due for signing by Area in April 1999? Also the IPC authorisation held by UCB is being reviewed under the 4 year review procedure and the permitted levels of pollutants are being considered for reduction. (See 4.3)
<b>Oil pollution of the Dodham Brook (October 1998)...</b>									
4.6. NEW ACTION 22.1.99. We will liaise with South Somerset DC and the Ninespring Steering Group to consider the provision of a semi-permanent oil boom on the Dodham Brook in 1999/2000.								0	New Action 22.1.99.

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>5. Impact of Penning, Low Flow, Nutrient enrichment, Algal and Weed Growth...</b>									
5.1. New non-compliance: Significant non-compliance with RQO of RE3 on King's Sedgemoor Drain - Henley to Confluence with 18 Feet Rhine (22). Investigate the relative contributions of low flows, duckweed and high temperature to low dissolved oxygen and take appropriate action.	Agency	⊙	⊙	⊙	⊙	⊙	⊙	1.5	An investigation is planned for summer 1999.
<b>5. Impact of Penning, Low Flow, Nutrient Enrichment, Algal and Weed Growth...</b>									
5.2. Monitor the results of a large pollution prevention campaign which was recently completed in catchment. Various improvements to water quality should be seen throughout the catchment.	Agency	⊙	⊙	⊙	⊙	⊙	⊙	1.5	Additional monitoring in place. An investigation is planned for summer 1999.
<b>5. Impact of Penning, Low Flow, Nutrient enrichment, Algal and Weed Growth...</b>									
5.3. Promote new buffer strips and marginal reedbeds to help remove nutrients from agricultural runoff.	Agency, FWAG	⊙	⊙	⊙	⊙	⊙	⊙	0.5	We are working with the Farming and Wildlife Advisory Group (FWAG) to promote buffer strips through the MAFF Countryside Stewardship Scheme, and also as part of general advice on farming best practice given during farm visits. Some farms in the catchment have been successful in getting a Stewardship Grant to include this work particularly on the River Yeo between Mudford and Yeovilton and on part of the River Isle.
<b>5. Impact of Penning, Low Flow, Nutrient enrichment, Algal and Weed Growth...</b>									
5.4. Wessex Water Services Ltd have commented that Durleigh Reservoir may be at risk from nitrate enrichment. A pollution prevention survey in summer 1997 specifically aimed at nitrate and pesticide runoff was carried out over the Durleigh catchment and advice given.	Agency	⊙	⊙	⊙	⊙	⊙	⊙	0	Report pending. Wessex Water Services Ltd have not raised further concerns. We are continuing to liaise closely with them on this issue.
<b>5. Impact of Penning, Low Flow, Nutrient enrichment, Algal and Weed Growth...</b>									
5.5. Proliferation of duckweed. We will investigate the reason for duckweed proliferation and its impact on water quality especially in the Somerset Levels and Moors.	Agency, English Nature, RSPB, SWT	⊙	⊙	⊙	⊙	⊙	⊙	1.9	This action is related to an action to investigate algal growth on the Somerset Levels and Moors. In 1998 we decided to concentrate our limited resources on the algal aspects rather than the duckweed. However we will review the need to carry out this action on duckweed depending on the availability of funding.

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>5. Impact of Penning, Low Flow, Nutrient enrichment, Algal and Weed Growth...</b>									
5.6. Low penned winter water levels: we will identify the extent of watercourses which would benefit from a change in penning regime and examine ways in which the fisheries habitat can be improved without compromising the interests of other users. In some areas this will require close co-operation with other interested parties including IDBs and riparian owners and where this proves possible implement changes to water level management.	Agency, IDBs, EN, riparian owners							0	We have undertaken to identify problem sites and take possible remedial action. See Issue 1 Actions 1.1 and 1.2, and Issue 2 Action 2.5 in the Somerset Levels & Moors Water Level Management Strategy Review Action Consultation Plan.
<b>5. Impact of Penning, Low Flow, Nutrient enrichment, Algal and Weed Growth...</b>									
5.7. Significant non-compliance of RQO of RE3 on Hinton Meads Brook - Fosseway to Hurst (80). Investigate the cause of low Dissolved Oxygen.	Agency							0.5	Martock Sewage Treatment Works outfall relocated to R Parrett in 1998. An improvement to Hinton Meads Brook has been observed., although low summer flow required to prevent localised summer flooding may still result in low Dissolved Oxygen levels. In 1999/00 we will carry out monitoring to assess improvements in water quality. (See 2.4)
<b>5. Impact of Penning, Low Flow, Nutrient enrichment, Algal and Weed Growth...</b>									
5.8. Non-compliance with EC Freshwater Fish Directive Dissolved Oxygen standard on River Cary - King's Sedgemoor Drain. We will carry out extra monitoring as planned to investigate the extent of eutrophication.	Agency							0.5	In 1999/00 we will carry out monitoring to assess the extent of eutrophication. We will continue to monitor all stretches of the King's Sedgemoor Drain to assess the effects of summer and winter penning.
<b>6. Inappropriate Location of Monitoring Point...</b>									
6.1. Significant non-compliance with RQO of RE3 (1998) on Durleigh Brook - Upstream Durleigh Reservoir to Confluence with Parrett (33). We will investigate the causes of low Dissolved Oxygen.	Agency							0.4	We are reviewing the whole of the monitoring network in 1999/00.
<b>6. Inappropriate Location of Monitoring Point...</b>									
6.2. Dissolved Oxygen non-compliance: Marginal non-compliance with RQO of RE2 on Fivehead - Blackwater to Confluence with Hatch Green Tributary (71). Review location of monitoring point.	Agency							0.4	We are reviewing the whole of the monitoring network in 1999/00.
<b>6. Inappropriate Location of Monitoring Point...</b>									
6.3. New non-compliance: Marginal non-compliance with RQO of RE2 (1999) on Parrett Tributary - Parrett Tributary Bagnell Farm to Confluence with Parrett (83). Review location of monitoring point.	Agency							0.4	We are reviewing the whole of the monitoring network in 1999/00.
<b>6. Inappropriate Location of Monitoring Point...</b>									
6.4. New non-compliance: Marginal non-compliance with RQO of RE2 on Meriot Stream Tributary - Maincombe to Confluence with Meriot Stream (86). Review location of monitoring point.	Agency							0.4	We are reviewing the whole of the monitoring network in 1999/00.



Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>6. Inappropriate Location of Monitoring Point...</b>									
6.5. New non-compliance: Marginal non-compliance with RQO of RE2 on Stogursey Brook - Stringston to Confluence with Dodington Tributary (1). Review location of monitoring point.	Agency							0.4	We are using an additional site on this stretch to determine whether or not the current site is unrepresentative of water quality. We are reviewing the whole of the monitoring network in 1999/00
<b>6. Inappropriate Location of Monitoring Point...</b>									
6.6. Marginal non-compliance with long term RQO of RE2 on Stogursey Brook - Stogursey to Confluence with Stringston Tributary (3). Review location of monitoring point.	Agency							0	Invalid data due to sampler error. We have improved site details to prevent a recurrence and discarded the invalid data.
<b>6. Inappropriate Location of Monitoring Point...</b>									
6.7. Marginal non-compliance with RQO of RE2 on Stogursey Brook - Stringston/Dodington Tributary Confluence to Sea (4). Review location of monitoring point.	Agency							0	We are using an additional site on this stretch to determine whether or not the current site is unrepresentative of water quality.
<b>6. Inappropriate Location of Monitoring Point...</b>									
6.8. Biological class d site on the Stogursey Brook at Stolford Bridge. Review location of monitoring point.	Agency							0.1	We are reviewing the whole of the monitoring network in 1999/00
<b>7. The Need to Review Discharge Consents (Habitats Directive)...</b>									
7.1. The need to review the consents for discharges to conservation areas designated under the Habitats Directive. A review programme is being established for discharges to SPAs and SACs.	Agency							0.6	The review programme will be finalised during 1999/00.
<b>8. The Need for Accurate Data on Waste Arisings...</b>									
8.1. Carry out a waste arisings survey in North Wessex Area as part of a national initiative.	Agency							12	The National Waste Production Survey commenced across the area in November 1998 and was completed in December 1998. the data is currently being processed nationally and once this is done the data will be made available to guide waste planning.
<b>9. The Need for Waste Minimisation and Improved Waste Management...</b>									
9.1. The need for a reduction in waste production and the amount going to landfill. Participate in waste reduction initiatives e.g. Somerset Waste Minimisation Group (SWMG).	Agency, SWMG							0.6	The EA is in partnership with Government Office South West and Shell UK in funding. Horizon South West, the umbrella organisation for local authorities, non Government organisations, charities and environmental practitioners etc. The aims of the organisation are: - i) To influence strategically the sustainable development of business activity in the South West to protect and enhance the environment ii) To maximise the effectiveness of member organisations. Note cost is £0.6k per year.

Issues and Actions	Resp Body	97 98 99 00 01 02	Cost	Progress
<b>9. The Need for Waste Minimisation and Improved Waste Management...</b>				
9.2. The need for a reduction in waste production and the amount going to landfill. Provide advice and guidance on waste minimisation and support initiatives.	Agency, LAs, Agenda 21 Groups	○ ○ ● ○ ○ ○ ○	2	We have produced a number of leaflets on waste minimisation including a North Wessex Area waste Minimisation and Recycling Directory. Opportunities were taken to give advice during visits to commercial and industrial premises as part of our waste arisings survey. Estimated cost of £2k per year.
<b>10. Emissions to air from UCB and Crosby Ltd...</b>				
10.1. The need to reduce emissions to air including the unpleasant odour from UCB Cellophane Ltd., Bridgwater.	UCB, Agency	○ ○ ○ ● ○ ○ ○	1	Although UCB have already made progress, a 4 year review of UCB's Integrated Pollution Control (IPC) authorisation is currently underway and this will require further investigations into reducing emissions to air, including odour.
<b>10. Emissions to air from UCB and Crosby Ltd...</b>				
10.2. The need to reduce dust and odour from wood-fired boilers at Crosby Ltd., Bridgwater. Our improvement programme requires Crosby to update their process to Best Available Technology Not Entailing Excessive Cost (BATNEEC).	Agency, Premdor Crosby Ltd.	○ ● ○ ○ ○ ○ ○	0.5	Crosby Ltd (now called Premdor Crosby Ltd): - All wood waste burning on site ceased in December 1998 and dust/odour problem has been solved. Wood waste now goes to 100% recycle and re-use, none is landfilled. Enforcement action complete and we have varied their Integrated Pollution Control (IPC) authorisation. The company has invested in a new extraction and collection system.
<b>11. The Need to Improve Water Management in the Catchment...</b>				
11.1. Optimisation of water resources on the Somerset Levels. Investigate the possibility of fine tuning the take of water from the river to the Moors and produce a report.	Agency, IDBs, potential consultancy involvement	○ ● ○ ○ ○ ○ ○	4	We have reviewed our Somerset Levels and Moors Water Level Management Strategy and produced an Action Plan. Implementation started in April 1999. This action will now be carried out as part of that Action Plan. Planned expenditure: 1999-2000 £5k; 2000-2001 £20k; 2001-2002 £10k. Recurring operational costs of £2k each year.
<b>11. The Need to Improve Water Management in the Catchment...</b>				
11.2. Optimisation of water resources on the Somerset Levels. Carry out an investigation into the need for, and feasibility of, providing a gauging station downstream of Langport and produce a report.	Agency	○ ○ ● ○ ○ ○ ○	15	Feasibility study in progress. (22.01.99)
<b>11. The Need to Improve Water Management in the Catchment...</b>				
11.3. Reduced flow downstream of Ashford Reservoir. Review impact of Ashford Reservoir on downstream water interests and act according to findings.	Agency	○ ○ ● ○ ○ ○ ○	1	Liaison initiated between Wessex Water Services Ltd and the Agency. Field data measurement are required to assess impacts.

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>11. The Need to Improve Water Management in the Catchment...</b>									
11.4. Low flow abstraction problems from the King's Sedgemoor Drain. Investigate impact of abstractions from King's Sedgemoor Drain and act according to findings.	Agency, licence holders							10	No Progress. In view of the pending future licencing review, the Agency feels it would be inappropriate to allocate resources to this action at this time.
<b>11. The Need to Improve Water Management in the Catchment...</b>									
11.5. Impact of releases from Sherborne Lake on River Yeo water quality. Develop and document an operational strategy to minimise the impact of this release.	Agency, WWSL							1	No Progress. In view of the pending future licencing review, the Agency feels it would be inappropriate to allocate resources to this action at this time.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.1. The need to review water levels on the Moors, to improve conditions for wildlife, in consultation with all interested parties. Review and update our water level management and nature conservation strategy and consult with interested parties.	Agency							0.4	Water levels are being reviewed through the Water Level Management Planning process, to which the Agency makes a contribution. We have reviewed our Somerset Levels and Moors Water Level Management Strategy and produced an Action Plan. Implementation started in April 1999. This action will now be carried out as part of that Action Plan. Planned expenditure: 1999-2000 £5k; 2000-2001 £20k; 2001-2002 £10k. Recurring operational costs of £2k each year.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.2. Produce First Stage Water Level Management Plan (WLMP) for North Moor SSSI.	Agency							2	The first stage WLMP for North Moor SSSI is complete. There are no new proposals for Water Level Management Plans.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.3. Contribute to Water Level Management Plans for the remaining SSSIs in the catchment being produced by the Internal Drainage Board (IDB)s.	Agency							2	The Agency has made a contribution to the Water Level Management Plans for the remaining SSSIs in the catchment.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.4. Seek opportunities to engineer more Raised Water Level Areas (RWLAS).	Agency							5	As part of the Environment Agency's Somerset Levels and Moors Water Level Management and Nature Conservation Strategy a study was commissioned to consider the feasibility of constructing Raised Water Level Area on Moorlinch Moor. The final report for this study was produced in December 1997 by Babtie Group Consultants (on behalf of the EA) and the scheme was approved by the Internal Drainage Board in September 1998. We hope the scheme will be complete by the end of September 1999.

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.5. Undertake a study of the impact of low winter ditch levels and produce options for action.	Agency	○	○	●	○	○	○	1	A study was undertaken to look at sites identified to us as problems and to detail potential solutions. Low winter ditch levels have been identified as an issue and action under the Somerset Levels and Moors Strategy (see action 5.6).
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.6. Continue to support monitoring to assess the effect of Raised Water Level Areas on bird numbers and grassland composition. Continue our work to monitor water quality in the rhyme and ditch systems of SSSIs to ensure the maintenance of favourable conservation status.	Agency	○	○	●	●	●	●	45	An earlier base line survey looked at the eutrophic status of the rhynes and ditches. A detailed survey of nutrient levels and sources has started this year (1999) and is planned to be carried out over the next three years at a cost of £15k per year.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.7. We will work with others to establish local biodiversity targets and monitor progress.	Agency, EN, Wildlife Trusts, RSPB, LAs	○	○	●	○	○	○	5	Monitoring review work is planned for summer 1999.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.8. We will help to implement action plans where the Agency is lead or contact point for BAP species (37) and habitats (4), or other species where the Agency has a particular specialist interest.	Agency	○	○	●	○	○	○	5	We have received money from English Nature to protect and enhance the habitat for the rare hairy dick beetle. Work is also ongoing with otters, water voles, white-clawed crayfish and depressed river mussel.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.9. We will promote buffer strips to improve water quality and enhance river corridor habitat diversity.	Agency FWAG Riparian Owners	○	○	●	●	●	●	0	See Action 5.3. Also a small collaborative project with the National Trust on the River Cary was completed in June 1999.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.10. We will continue to work with highways authorities to ensure underpasses etc. for otters are installed on new roads.	Agency, LAs, Highways authorities	○	○	●	○	○	○	0.5	W S Atkins have agreed to construct otter culverts on new road construction where necessary.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.12. We will initiate Phase 1 of the headwater streams biodiversity review and report findings. See R&D report.	Agency	○	○	●	○	○	○	6	Phase 1 survey complete. A report was produced in May 1999.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.13. The need to reduce aerial deposition of nitrogen and ammonia which has a detrimental effect on wildlife particularly on the peat soils of the Somerset Moors. Set an example in reducing emissions from vehicles used on Agency business.	Agency	○	○	●	●	●	●	0.5	To date agency mileage has increased, but we have produced a 'green transport plan' for the area and mileage reduction targets have been set for every team within the area.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>									
12.14. The need to reduce aerial deposition of nitrogen and ammonia which has a detrimental effect on wildlife particularly on the peat soils of the Somerset Moors. Contribute to national initiatives to reduce oxides of nitrogen and sulphur emissions from power stations.	Agency, SDC, UCB Cellophane Ltd	○	○	●	○	○	○	0.5	Details: sulphur dioxide release from UCB power station chimney is being modelled by Agency. Ambient monitoring at suitable downwind sites is expected to be required under Air Quality Regulations.



Issues and Actions	Resp Body	97 98 99 00 01 02	Cost	Progress
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>				
12.15. The need to reduce aerial deposition of nitrogen and ammonia which has a detrimental effect on wildlife particularly on the peat soils of the Somerset Moors. Ensure emissions of nitrogen and ammonia to air from major industries are reduced by means of improvement programmes agreed as part of IPC Authorisations.	Agency	○ ○ ○ ○ ○ ○ ○ 0		No such emissions take place in this catchment so we will drop this action from this plan.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>				
12.16. The need for channel restoration of degraded stretches for wildlife enhancement. Identify priority stretches for restoration using river corridor and habitat surveys. Seek funds to implement projects.	Agency	○ ○ ○ ○ ● ○ ○ 15		Priority matrix development awaiting funding for implementation of specific river reaches. The Lytes Cary scheme was completed by March 1999 at a cost of £15k to the Agency and £10k to the National Trust. The Langacre Rhyne project has been approved and the Agency is currently seeking partners to progress it.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>				
12.17. Need to restrict cattle access to streams. We will work closely with landowners other organisations including MAFF, IDBs and FWAG to raise awareness of the damage (bankside erosion and channel siltation) that can be caused by unrestricted livestock access to streams.	Agency, MAFF, IDBs, FWAG, Wildlife Trusts	○ ○ ● ● ● ● ● 0		We are working with FWAG to promote agricultural best practice including raising awareness of the damage that can be caused by unrestricted livestock access to streams. See action 5.3.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>				
12.18. The need to reduce fish loss at sluices and other water control structures. We will investigate the extent of this potential problem and if substantiated we may need to incorporate modifications at some structures.	Agency	○ ○ ● ○ ○ ○ ○ 0.5		A national R&D project on the issue of fish losses from rivers has been proposed nationally but is subject to the prioritised funding becoming available. No progress to date.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>				
12.19. The need to increase the number of fish refuge areas in the lowland catchment. We will identify opportunities for habitat improvement and habitat creation by working with riparian owners and other interested parties. In particular there may be opportunities to undertake this type of work during routine Environment Agency maintenance where landowners are in agreement.	Agency	○ ○ ● ○ ○ ○ ○ 0.2		No specific opportunities have been identified to date. The principle is established, and as locations are identified along with appropriate funding these projects will be pursued. See also Action 12.8.
<b>12. The Need to Maintain &amp; Enhance Biodiversity...</b>				
12.20. Good fisheries which are not designated EC Freshwater Fish Directive sites. We will review the extent of designations under the EC Freshwater Fish Directive as it applies to the Isle and its tributaries.	Agency	○ ○ ○ ● ○ ○ ○ 0.5		No progress

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>13. Eel &amp; Elver Fishery...</b>									
13.1. The status of elver and eel stocks (in the River Parrett). Review of obstructions to elver migration.	Agency	○	○	●	○	○	○	0.5	Since a commissioned report in 1997 we have not specifically progressed a survey on this matter. We will however continue to consider this issue of obstruction to migration of elvers and try to gather more information by trapping studies etc if possible. Nothing specifically planned.
<b>13. Eel &amp; Elver Fishery...</b>									
13.2. The status of elver and eel stocks (in the River Parrett). Assessment of adult stock in routine fisheries surveys.	Agency	○	○	●	○	○	○	0.5	Assessment of adult stock in routine fisheries surveys - an ongoing monitoring programme with rivers on a 5 year rolling programme.
<b>13. Eel &amp; Elver Fishery...</b>									
13.3. Alleged decline in stock. R&D - Eel and Elver stocks in England and Wales, their Status and Management.	MAFF, Agency	○	○	●	○	○	○	0.5	R&D - Eel and elver stocks in England and Wales, their status and management. This research is happening during 1999.
<b>13. Eel &amp; Elver Fishery...</b>									
13.4. Alleged decline in stock. National Review of Licence Duties eels and elvers.	Agency	○	○	●	●	○	○	0.5	National Review of Licence duties eels and elvers - this development of a new charging scheme for commercial eel fishing is at a draft state.
<b>13. Eel &amp; Elver Fishery...</b>									
13.5. Disturbance/vandalism of property and structures. Liaison with police and parish councils.	Police, Parish Councils, Agency	○	○	●	○	○	○	0.5	Liaison with Police and parish councils. Meeting with parish councils and local Police occurred in 1998, annual liaison ongoing.
<b>13. Eel &amp; Elver Fishery...</b>									
13.6. Legislative changes e.g. licence limitation. As consultee contribute to MAFF Review of Salmon and Freshwater Fisheries Act.	MAFF, Agency	○	○	●	○	○	○	0.5	As consultee contribute to MAFF Review of Salmon and Freshwater Fisheries Act. There has been a national Fisheries Policy and Legislative Review Group, drawn from several fields. It is due to report on a wide range of fisheries matters in Autumn 1999. The Agency nationally has made submissions to this group on a wide range of fisheries subjects including eels.
<b>14. The need to Maintain &amp; Enhance River Corridor Landscape...</b>									
14.1. The need to encourage tree planting adjacent to certain reaches of the Rivers Isle and Cary, tributaries of the Parrett and lower reaches of some of the Quantock streams. We will work closely with other organisations including MAFF, IDBs and FWAG to raise awareness of the value of riverside trees. Encourage planting and natural regeneration to exclude livestock from watercourses.	Agency, MAFF, IDBs, FWAG, Wildlife Trusts	○	○	○	●	●	●	0.5	Awareness raising has continued but no progress to date on specific tree planting projects, but see Action 5.3 relating to buffer strips which may incorporate tree planting as part of the scheme. Also see Action 12.16. For channel restoration projects which may include tree planting.

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>15 The need for improved flood defence practices in the catchment...</b>									
15.1. The need to prioritise flood defence maintenance and improve efficiency and effectiveness - Develop the Flood Defence Management System (FDMS) for the Somerset Levels and Moors.	Agency							0.5	The FDMM and FDMS procedures cannot be directly applied to pumped catchments on the Somerset Levels and Moors and other areas where floodwater flows from a reach length to affect areas remote from the immediate floodplain. A Consultant has produced Interim Guidelines on how best to justify and prioritise works within these areas. The basic principles include. A) Legal or environmental overrides which require that an existing operation or maintenance regime is continued. B) Compare the scenarios "with maintenance" to "without maintenance". In other words "what happens if we don't do it". C) There should be a general presumption that the "system operation" eg pumping, water level management etc must continue. D) Procedures need to be agreed and adopted to value non flood defence benefits (summer water control, environmental). As part of the FDMS an asset survey is currently underway with the fieldwork data due for input to the system in April/May. The system cannot be used until this data is available.
<b>15 The need for improved flood defence practices in the catchment....</b>									
15.2. The need to prioritise flood defence maintenance and improve efficiency and effectiveness - Develop a model for the Parrett/Tone system.	Agency							0.5	The computer model has been successfully calibrated for the "in bank" model but some difficulties are being experienced with the "out of bank" model. It is proposed that the calibration phase will be complete by the end of January. This will be followed by looking at the operation scenarios specified. Two of these are actions 15.4 and 15.5.
<b>15 The need for improved flood defence practices in the catchment....</b>									
15.3. The need to prioritise flood defence maintenance and improve efficiency and effectiveness - Use FDMS to draw up prioritised list of defence maintenance requirements and start implementation of the resulting programme.	Agency							0.5	See action 15.1.

Issues and Actions	Resp Body	97 98 99 00 01 02	Cost	Progress
<b>15 The need for improved flood defence practices in the catchment....</b>				
15.4. The need for more efficient operation of the Parrett Relief Channel (Sowey River) - Using our computer model and data from new gauges produce an options report and present to IDBs, EN, conservation groups and other interested bodies.	Agency, EN, IDBs, SWT	○ ● ● ○ ○ ○	0.5	The computer model has been successfully calibrated for the "in bank" model but some difficulties are being experienced with the "out bank" model. It is proposed that the calibration phase will be complete by the end of January. This will be followed by looking at the operating scenarios specified. Two of these are actions 15.2 and 15.5.
<b>15 The need for improved flood defence practices in the catchment....</b>				
15.5. Need to establish a justifiable de-silting frequency below Burrowbridge - Use the computer model to investigate the effect of channel shape on river levels and produce an options report.	Agency	● ● ● ○ ○ ○	0.5	The computer model has been successfully calibrated for the "in bank" model but some difficulties are being experienced with the "out bank" model. It is proposed that the calibration phase will be complete by the end of January. This will be followed by looking at the operating scenarios specified. Two of these are actions 15.2 and 15.4.
<b>15 The need for improved flood defence practices in the catchment....</b>				
15.6. Need to Improve the efficiency and effectiveness of pumping station operation - Introduce a scheme of planned maintenance and capital refurbishment.	Agency	○ ○ ● ● ● ○	0.5	A planned maintenance schedule for M&E works is in place. This action is now complete and the maintenance is ongoing. It has introduced more significant work into the medium term capital programme however it should be remembered that all work, capital and revenue, is dependant on availability of funds.
<b>15 The need for improved flood defence practices in the catchment....</b>				
15.7. the need to protect urban areas to current standards (usually 1 in 100 year flood event) - Undertake a full catchment drainage model and develop appropriate surface water drainage policies for urban areas.	Agency	○ ○ ● ○ ○ ○	0.5	The pilot Catchment Drainage Study carried out in 1995 for Section 105 provides Hydrological Data. This can be used for catchment modeling. Development hotspots have been identified in District Council Areas. Hydraulic models are now being produced for the following non main rivers for completion by the end March.. A) Goulds Brook and Upper Parrett at Crewkerne and Merriot. B) Balls Water at Montacute. C) Shudrick Stream at Ilminster/Donyatt. D) Dodham Brook at Yeovil.



Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>15 The need for improved flood defence practices in the catchment....</b>									
15.8. Review the effects of intensive routine maintenance on aquatic biota; using results of recent study - Where river reaches are over-serviced, relax maintenance regime to retain marginal vegetation and avoid disturbing the bed. Where this is not possible, consider re-modelling channel to create marginal habitats and greater capacity.	Agency				●			0.5	Relaxation of maintenance practices for the benefit of the environment has been introduced gradually over the last few years and procedures are now in place to minimise the risks to the environment from the work which is carried out. The recent study makes idealistic requests for changing practices which will have significant cost implications and further discussions are required before any significant changes can be made. Where practical some of the recommendations will be included as part of the Review of Flood Defence Practices.
<b>16 The need to take account of recreation in Agency work....</b>									
16.1. Produce Conservation and Recreation Management Plans for Agency land in this catchment.	Agency				●			0.5	We are preparing C&R management plans for the Kings Sedgemoor Drain and the Langacre/Sowey, to enhance the Conservation and recreation value of land which is owned by the Agency.
<b>17 Development Pressure....</b>									
17.1. The need for strategic development planning - Work in partnership with local authorities to improve environmental protection policies and work towards more sustainable development.	Agency				●			0.5	We have responded to South Somerset and Taunton Deane's deposit drafts. We have also participated in an examination in public for South Somerset strategy.

Issues and Actions	Resp Body	97	98	99	00	01	02	Cost	Progress
<b>17 Development Pressure....</b>									
17.2. The increasing demand for public water supply - Work with WWSL to ensure that future needs for water supply and disposal can be sustained without unacceptable impact on the environment.	Agency	○	○	●	○	○	○	2	The Government's water watchdog 'OfWat' sets the amount that companies can charge their customers through the periodic review process. This means that water companies have to produce demand forecasts and compare them with their available resources for up to 10 years ahead. They then have to consider any potential resource options which are required to meet the forecast demand. As part of the same process the Environment Agency requires water companies to complete Water Resource Plans which look 25 years ahead. The Agency is the Government's environmental watchdog and is responsible for granting licences to abstract water, therefore we need to know how much water the companies are going to need. We are currently in OfWat's third periodic review and the companies are due to submit their final Water Resource Plans to the Agency in April 1999. The Agency expects that WWSL will make their plan public before they submit the final plan in April and is happy to be involved in this (Water Resource Planning Guideline, Environment Agency 1998 v1.1). For more information please see section 3.7.
<b>17 Development Pressure....</b>									
17.3. The increase in waste production - Survey waste arisings in the Plan area.	Agency	○	○	●	○	○	○	0	The National Waste Production Survey commenced across the area in November 1998. The survey was completed in 1998 and the data is currently being processed nationally. The processed data will then be available to guide the waste planning process.
<b>17 Development Pressure....</b>									
17.4. The need for early involvement in planning new road schemes - Seek the earliest possible discussions with the local planning authorities and new road developers to advise on the best environmental options for each scheme.	Agency, local authorities	○	○	●	○	○	○	0.5	We are providing input into build up of Sedgemoor Local Plan.

## 5. Appendices

### 5.1 Duties, powers and interests of the Agency

The Environment Agency has a wide range of interests in the areas of water management, waste management and pollution prevention and control. Whilst many of these interests are supported by statutory duties and powers, much of the Agency's work is advisory, with the relevant powers resting with other bodies such as local planning authorities. The following table therefore summarises the Agency's duties, powers and interests and their relationship to land-use planning.

Agency Duty	The Agency has powers to:	The Agency has an Interest (but no powers) in :	Partnership
<b>Water Resources</b> The Agency has a duty to conserve, redistribute, augment and secure the proper use of water resources.	<ul style="list-style-type: none"> <li>• Grant or vary water abstraction and impoundment licences on application.</li> <li>• Revoke or vary existing licences to reinstate flows or levels to surface waters or groundwater which have become depleted as a result of abstraction, and are subject to a liability for compensation.</li> <li>• Serve Conservation Notices (S30) on Minerals Operators to control the process of dewatering in quarries.</li> </ul>	<ul style="list-style-type: none"> <li>• The more efficient use of water by water companies, developers, industry, agriculture and the public and the introduction of water efficiency measures and suitable design and layout of the infrastructure.</li> <li>• Negotiating S106 Agreements that afford protections to the water environment.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency is committed to water-demand management and will work closely with water companies and developers, local authorities and relevant organisations to promote the efficient use of water:</li> <li>• The Agency acknowledges that new resources may be needed in the future and supports a twin-track approach of planning for water resource development alongside the promotion of demand-management measures.</li> <li>• The Agency seeks to influence planning decisions for new development by encouraging the inclusion of water conservation measures in new properties, particularly in areas where water resources are under stress, and by ensuring that planning authorities allow for the lead time for resource development.</li> <li>• Negotiating S106 Agreements that afford protections to the water environment.</li> </ul>

Agency Duty	The Agency has powers to:	The Agency has an Interest (but no powers) in :	Partnership
<p><b>Flood Defence</b> The Agency has a duty to exercise general supervision over all matters relating to flood defence throughout each catchment.</p>	<ul style="list-style-type: none"> <li>• Control, through Land Drainage consents, of development within 8 m of main river (Water Resources Act 1991, Section 109) or construction of a structure that would affect the flow of an ordinary watercourse (Land Drainage Act, 1991 Section 23).</li> <li>• Produce flood risk maps for all main rivers under S105 of Water Resources Act 1991.</li> <li>• Undertake works to main rivers using permissive powers.</li> <li>• Issue flood warnings to the public relating to main rivers, local authorities and the police.</li> <li>• Consent mineral working within 16 m of main rivers.</li> </ul>	<ul style="list-style-type: none"> <li>• Granting of planning permission throughout a catchment but especially floodplains where development can significantly increase flood risk. This permission is granted by local planning authorities.</li> <li>• Installation of surface water source control measures e.g. flood attenuation structures.</li> <li>• Supervising the maintenance of ordinary watercourses which is a local authority remit, but may impact on main rivers.</li> <li>• Installation of buffer zones which reduce flood risk and have significant environmental benefits.</li> <li>• Urban and rural land use and measures that can reduce flood risk or the need for watercourse maintenance.</li> </ul>	<ul style="list-style-type: none"> <li>• As a statutory consultee on planning applications within main river floodplains the Agency offers advice based on knowledge of flood risk. It also advises on the environmental impacts of proposed floodplain development.</li> <li>• The Agency will encourage best practice, including source control measures and common standards, among local authorities and riparian owners to protect and enhance the environment.</li> <li>• The Agency works with the civil authorities to prepare flood warning dissemination plans and supports their endeavours to protect communities at risk.</li> </ul>
<p><b>Water Quality</b> The Agency has a duty to monitor, protect, manage and, where possible, enhance the quality of all controlled waters including rivers, groundwaters, lakes, canals, estuaries and coastal waters through the prevention and control of pollution.</p>	<ul style="list-style-type: none"> <li>• Issue discharge consents to control pollution loads in controlled waters.</li> <li>• Regulate discharges to controlled waters in respect of water quality through the issue and enforcement of discharge consents.</li> <li>• Issue 'works notices' where action is required to reduce the risk of pollution.</li> <li>• Prosecute polluters and recover the costs of clean-up operations.</li> <li>• Serve prohibition notices (with or without conditions) on highway authorities to require treatment and pollution measures for highway runoff.</li> <li>• Issue authorisations under IPC regulations. See Air Quality – Powers.</li> </ul>	<ul style="list-style-type: none"> <li>• The greater use of source control measures to reduce pollution by surface water runoff.</li> <li>• Prevention and education campaigns to reduce pollution incidents.</li> <li>• The provision of highway runoff control measures which is a highway authority remit.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency will liaise with local authorities, developers, the Highways Agency, industry and agriculture to promote pollution prevention and the adoption of source control measures. As a statutory consultee on planning applications, the Agency will advise local planning authorities on the water quality impact of proposed developments.</li> </ul>



Agency Duty	The Agency has powers to:	The Agency has an Interest (but no powers) in :	Partnership
<b>Air Quality</b> The Agency has a duty to implement Part 1 of the Environment Protection Act 1990.	<ul style="list-style-type: none"> <li>• Regulate, as part of Integrated Pollution Control (IPC) releases to air, land and water from the largest technically complex and potentially most polluting prescribed industrial processes such as refineries, chemical works and power stations including enforcement of, and guidance on, BATNEEC and BPEO.</li> <li>• Have regard to the government's National Air Quality Strategy when setting standards for the releases to air from industrial processes.</li> </ul>	<ul style="list-style-type: none"> <li>• The vast number of smaller industrial processes which are controlled by local authorities.</li> <li>• Control over vehicular emissions and transport planning.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency provides data on IPC processes and advice on planning applications to local authorities. The Agency is willing to offer its technical experience to local authorities on the control of air pollution. The Agency wishes to liaise with local authorities in the production of their Air Quality Management Plans. The Agency will advise and contribute to the government's National Air Quality Strategy.</li> </ul>
<b>Radioactive Substances</b> The Agency has a duty under the Radioactive Substances Act 1993 to regulate the use of radioactive materials and the disposal of radioactive waste.	<ul style="list-style-type: none"> <li>• To issue certificates to users of radioactive materials and disposers of radioactive waste, with an overall objective of protecting members of the public.</li> </ul>	<ul style="list-style-type: none"> <li>• The health effects of radiation.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency will work with users of the radioactive materials to ensure that radioactive wastes are not unnecessarily created, and that they are safely and appropriately disposed of. The Agency will work with MAFF to ensure that the disposal of radioactive waste creates no unacceptable effects on the food chain.</li> <li>• The Agency will work with the Nuclear Installations Inspectorate (NII) to ensure adequate protection of workers and the public at nuclear sites. The Agency will work with the HSE on worker protection issues at non-nuclear sites.</li> </ul>
<b>Waste Management</b> The Agency has a duty to regulate the management of waste, including the treatment, storage, transport and disposal of controlled waste, to prevent pollution of the environment, harm to public health or detriment to local amenities.	<ul style="list-style-type: none"> <li>• Vary waste management licence conditions.</li> <li>• Suspend and revoke licences.</li> <li>• Investigate and prosecute illegal waste management operations.</li> </ul>	<ul style="list-style-type: none"> <li>• The siting and granting of planning permission for waste management facilities. This is conducted by the waste industry and local planning authorities. The Agency, as a statutory consultee on planning applications, can advise on such matters.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency will work with waste producers, the waste management industry and local authorities to reduce the amount of waste produced, increase re-use and recycling and improve standards of disposal.</li> </ul>
<b>Contaminated Land</b> The Agency has a duty to develop an integrated approach to the prevention and control of land contamination, ensuring that remediation is proportionate to risks and cost-effective in terms of the economy and environment.	<ul style="list-style-type: none"> <li>• Regulate the remediation of contaminated land designated as special sites.</li> <li>• Prevent future land contamination by means of its Integrated Pollution Control (IPC), Water Quality and other statutory powers.</li> <li>• Report on the state of contaminated land.</li> </ul>	<ul style="list-style-type: none"> <li>• Securing with others, including local authorities, landowners and developers, the safe remediation of contaminated land.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency supports land remediation and will promote this with developers and local authorities and other stakeholders.</li> </ul>

Agency Duty	The Agency has powers to:	The Agency has an interest (but no powers) in :	Partnership
<b>Conservation</b> The Agency will further conservation, wherever possible, when carrying out water management functions; have regard to conservation when carrying out pollution control functions; and promote the conservation of flora and fauna which are dependent on an aquatic environment.	<ul style="list-style-type: none"> <li>• The Agency has no direct conservation powers but uses its powers with regard to water management and pollution control to exploit opportunities for furthering and promoting conservation.</li> </ul>	<ul style="list-style-type: none"> <li>• The conservation impacts of new development. These are controlled by local planning authorities.</li> <li>• Protection of specific sites or species, which is a function of English Nature. The Agency does, however, provide advice to local authorities and developers to protect the integrity of such sites or species.</li> <li>• Implementation of the UK Biodiversity Plan for which it is the contact point for twelve species and one habitat.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency supports action to sustain or improve natural and man-made assets so that they are made available for the benefit of present and future generations. Many development schemes have significant implications for conservation. The Agency will work with developers, local authorities, conservation bodies and landowners to conserve and enhance biodiversity.</li> </ul>
<b>Landscape</b> The Agency will further landscape conservation and enhancement when carrying out water management functions; have regard to the landscape when carrying out pollution control functions; and promote the conservation and enhancement of the natural beauty of rivers and associated land.	<ul style="list-style-type: none"> <li>• The Agency must further the conservation and enhancement of natural beauty when exercising its water management powers and have regard to the landscape in exercising its pollution control powers.</li> </ul>	<ul style="list-style-type: none"> <li>• The landscape impact of new development, particularly within river corridors. This is controlled by local planning authorities.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency produces River Landscape Assessments and Design Guidelines which it uses when working with local authorities and developers to conserve and enhance diverse river landscapes.</li> </ul>
<b>Archaeology</b> The Agency has a duty to consider the impact of all of its regulatory, operational and advising activities upon archaeology and heritage, and implement mitigation and enhancement measures where appropriate.	<ul style="list-style-type: none"> <li>• The Agency must promote its archaeological objectives through the exercise of its water management and pollution control powers and duties.</li> </ul>	<ul style="list-style-type: none"> <li>• Direct protection or management of sites of archaeological or heritage interest. This is carried out by local planning authorities, County Archaeologists and English Heritage.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency will liaise with those organisations which have direct control over archaeological and heritage issues to assist in the conservation and enhancement of these interests.</li> </ul>
<b>Fisheries</b> The Agency has a duty to maintain, improve and develop salmon, trout, freshwater and eel fisheries.	<ul style="list-style-type: none"> <li>• Regulate fisheries by a system of licensing.</li> <li>• Make and enforce fisheries byelaws to prevent illegal fishing.</li> <li>• Promote the free passage of fish and consent fish passes.</li> <li>• Monitor fisheries and enforce measures to prevent fish entrainment in abstractions.</li> <li>• Promote its fisheries duty by means of land drainage consents, water abstraction applications and discharge applications.</li> </ul>	<ul style="list-style-type: none"> <li>• The determination of planning applications which could affect fisheries.</li> </ul>	<ul style="list-style-type: none"> <li>• Many development schemes have significant implications for fisheries. The Agency will work with anglers, riparian owners, developers and local authorities to protect fisheries.</li> </ul>
<b>Recreation</b> The Agency has a duty to promote rivers and water space for recreational use.	<ul style="list-style-type: none"> <li>• The Agency contributes towards its recreation duty through the exercise of its statutory powers and duties in water management.</li> </ul>	<ul style="list-style-type: none"> <li>• Promotion of water sports. This is carried out by the Sports Council and other sports bodies.</li> </ul>	<ul style="list-style-type: none"> <li>• The Agency will work with the Countryside Agency, the Sports Council, British Waterways and other recreational and amenity organisations to optimise recreational use of the water environment.</li> </ul>

## 5.2 Glossary of Terms and Abbreviations

AMP	Asset Management Plan
AONB	Area of Outstanding Natural Beauty, designated by the Countryside Commission to conserve and enhance the natural beauty of the landscape, mainly through planning controls
BAP	Biodiversity Action Plan
BATNEEC	Best available technology not entailing excessive cost.
BCU	British Canoe Union
BPEO	Best practicable environmental option
CSO	Combined Sewer Overflow
DETR	Department of the Environment, Transport and the Regions
DLAP	Draft Local Action Plan
EC	European Community
EN	English Nature
ESA	Environmentally Sensitive Area
FDMS	Flood Defence Management System
FWAG	Farming and Wildlife Advisory Group
HMIP	Her Majesty's Inspectorate of Pollution, the former regulatory authority for IPC, and now part of the Environment Agency
IDB	Internal Drainage Board
IPC	Integrated Pollution Control, a system for regulating releases from the larger and more complex industrial processes to air, land and water in an integrated way.
LEAP	Local Environment Agency Plan
LPA	Local Planning Authority
MAFF	Ministry of Agriculture, Fisheries and Food
NFU	National Farmers Union
NGO	Non Governmental Organisations
NRA	National Rivers Authority
OFWAT	Office of Water Services, the government regulatory agency for the water industry
R&D	Research and Development
RQO	River Quality Objective
RWLA	Raised Water Level Areas
SCC	Somerset County Council
SERC	Somerset Environmental Records Centre
SLA	Special Landscape Area
SSSI	Site of Special Scientific Interest of national importance designated under the Wildlife and Countryside Act 1981. Habitats, sites for individual species, geology and land forms may be designated
STW	Sewage Treatment Works
SWT	Somerset Wildlife Trust
WLMP	Water Level Management Plan
WTW	Water Treatment Works
WWSL	Wessex Water Services Ltd



## 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.

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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**



**ENVIRONMENT  
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