

local environment agency plan

NORTH SOMERSET RIVERS

SECOND ANNUAL REVIEW

MAY 2001



ENVIRONMENT
AGENCY

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1. Introduction

1.1. The Environment Agency

The Environment Agency has a wide range of duties and powers relating to different aspects of environmental management (Appendix 5.2). We are required and guided by Government to use these duties and powers in order to protect the environment and help achieve the objective of sustainable development, defined as:

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs

At the heart of sustainable development are the integration of human needs and the environment within which we live. The creation of the Agency itself in 1996 was in part recognition of the need to take a more integrated and long-term view of environmental management at a national level. We therefore have to reflect this in the way we work and in the decisions we make. The local authorities are the focus for community action to work towards a more sustainable way of life at a local level. This is part of the global Local Agenda 21 initiative that we are committed to support.

Taking a long-term perspective will require us to anticipate risks and encourage precautions, particularly where impacts on the environment may have long-term effects, or where the effects are irreversible. We must also develop our role to educate and inform society as a whole, as well as carrying out our prevention and enforcement activities, in order to ensure continuing protection and enhancement of the environment.

1.2. Environmental Strategy

In September 1997 the Agency published its first national strategy entitled *An Environmental Strategy for the Millennium and Beyond* which set out nine principle and immediate environmental concerns. The Millennium Strategy has recently been under review resulting in a new Environmental Vision, which was launched early in 2001.

The Vision retains nine themes, but they are significantly different, reflecting a change in the Agency's approach. The Vision looks at a much longer timeframe (20 years or more) and recognises to a much greater extent the importance of working with others. However, for consistency this annual review has retained its original layout based on the Environmental Strategy (listed in section 3.3). Our vision is:

A healthy, rich and diverse environment in England and Wales for present and future generations

The new themes that underpin the Vision are:

- A better quality of life
- An enhanced environment for wildlife
- Cleaner air for everyone
- Improved and protected inland and coastal waters
- Restored, protected land with healthier soils
- A 'greener' business world
- Wiser, sustainable use of natural resources
- Limiting and adapting to climate change
- Reducing flood risk

The Vision sets key targets that we will contribute to, and lists key environmental indicators against which we can measure our performance. Copies of *An Environmental Vision: The Environment Agency's Contribution to Sustainable Development* can be obtained from our Bridgwater Office.

1.3. Local Environment Agency Plans

One of the key outcomes of the United Nations Earth Summit held in Rio de Janeiro in 1992 was agreement by governments that, in order to solve global environmental problems, local action is crucial; we must all therefore **think globally but act locally**. The Agency is committed to a programme of Local Environment Agency Plans (LEAPs) in order to produce our local plan of integrated actions for environmental improvement.

LEAPs are non-statutory, integrated action plans based on local river catchments, and provide a focus for those concerned with the future of the local area. All of the river catchments in England and Wales are now covered by LEAPs.

LEAPs will help contribute to the principle of sustainable development through integrated environmental management and improvement. They will also play a key role in:

- promoting openness and accountability
- developing closer links with the public and with key partners
- educating the public on local environmental issues
- prioritising the Agency's work through an action plan for managing and improving the local area over the next five years
- realising the environmental potential of the area
- forming joint actions and partnerships for environmental improvement

1.4. North Somerset Rivers LEAP

The North Somerset Rivers Consultation Report was produced in December 1997. This outlined key environmental issues facing the area and options for their solution. Following a three-month period of consultation, during which over 300 organisations and individuals were consulted, the Action Plan was published in November 1998. This sets out a five-year programme of actions to improve the local environment and outlines areas of work and investment proposed by the Agency and others. The Agency reported on progress in the First Annual Review published in April 2000.

1.5. The Annual Review Process

An important part of the LEAP process is to monitor progress and review the Action Plan on an annual basis, to ensure that targets are achieved and actions completed, and that the plan continues to address relevant issues in an appropriate manner.

This Second Annual Review of the North Somerset Rivers LEAP summarises the progress made since publication of the First Annual Review in April 2000. The progress for each action has been gathered through discussions with the Agency Officers responsible for leading on each particular action. This progress report aims to:

- report on progress made by all those involved
- report on changes to the content or timing of actions, including the addition of new actions and removal of existing actions, and reasons for these
- report on changes and events in the plan area
- report on other matters, such as new legislation or initiatives, affecting the LEAP

We invite readers to contact us at any time to raise new issues or suggest new actions; this ensures the LEAP process is a live one, which constantly evolves to meet the changing needs of the local environment.

1.6 The North Somerset Rivers LEAP Steering Group

This group represents a range of commercial, local authority and environmental interests operating within the catchment. The group comments upon the Consultation Draft, Action Plan and Annual Review prior to publication. They monitor the implementation of the Action Plan and provide us with specific advice on the importance of issues within the catchment.

The group acts as a communication link between the local community and the Agency, and helps to promote environmental initiatives within the catchment. Each of the six catchments in the North Wessex Area has its own Steering Group. The members of the North Somerset Rivers LEAP Steering Group are:

Name	Representing
Mr Basil Greenwood	English Nature
Mr M Smith	Farming and Wildlife Advisory Group (FWAG)
Mr Jim Hayward	Mendip Outdoor Pursuits
Mr Paul Hodge	Bristol Water
Mr R G Fox	Portbury Parish Council
Ms Alison Washbrook	Avon Wildlife Trust
Mr J Lewis	Five Valleys Trust
Ms Kate Hoare	North Somerset Council (Planning / Transport)
Mr Steven Marriott	North Somerset Council (Ecology / LA21)
Mr Steve Holcroft	North Somerset Council (Engineering)
Mrs Audrey Lennox	The Ramblers Association
Mr Huw Lloyd Jones	Ministry of Agriculture, Fisheries and Food (MAFF)
Mr Martin Venning	Wessex Water
Mr S Bonwick	Clevedon & District Freshwater Angling Club
Mr Jonathan Comer	Flood Defence Committee
Mr R Osmond	West Mendip Internal Drainage Board
Cllr J Daws	North Somerset Council

1.7 North Somerset Rivers catchment overview

The catchment stretches from Brean Down in the south to the mouth of the River Avon in the north, and east to Blagdon Lake. The Severn Estuary borders the area to the west. The Severn Estuary is designated as a Special Protection Area / RAMSAR / candidate Special Area of Conservation (see section 4.1). The estuary will be covered by a separate plan, The Severn Estuary Strategy, which is currently planned to be published by autumn 2001.

The LEAP area combines the catchments of the Rivers Banwell, Oldbridge, Yeo, Kenn, Blind Yeo and Land Yeo, as well as Uphill Great Rhyne, Drove Rhyne and Portbury Ditch. The rivers are characterised by having short upland reaches and long lowland reaches with very low gradients. About one-third of the area is potentially floodable, relying on engineered flood defences. Nearly half of the catchment is low-lying levels and moors, where four Internal Drainage Boards (IDBs) are responsible for water management.

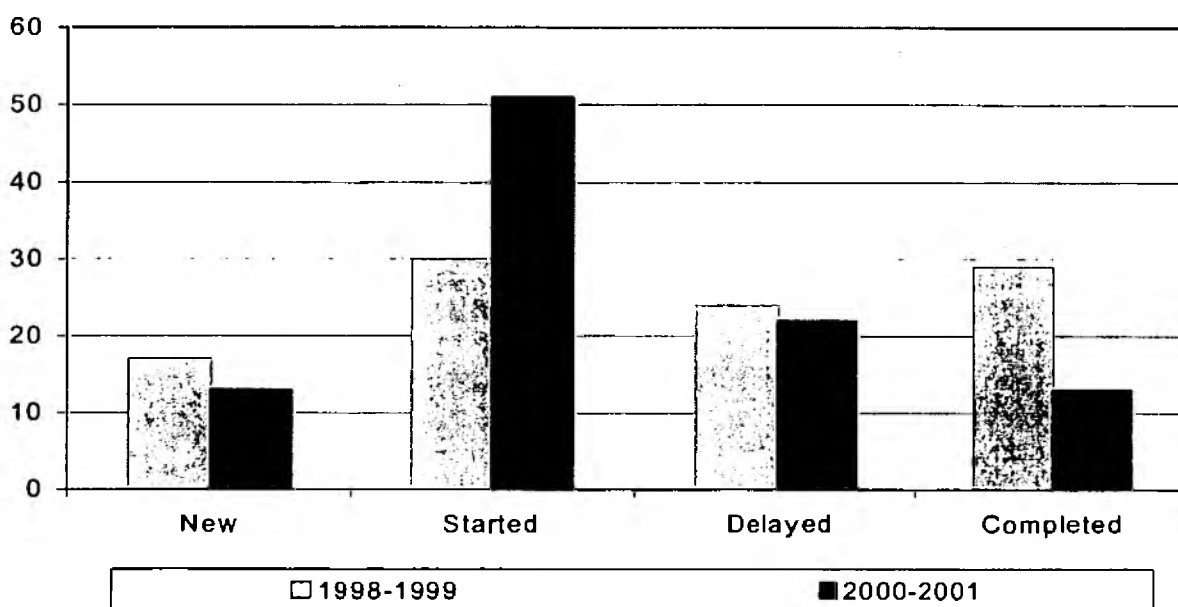
The catchment has a population of 178,000 (1991 census) and is concentrated in the coastal towns of Weston-Super-Mare, Clevedon and Portishead. Inland, the main settlements are Nailsea, Yatton and Congresbury. The majority of the catchment is agricultural land, with cattle farming being the dominant land use. Tourism is particularly important in the area, especially for the seaside resorts. The North Somerset Levels and Moors support some nationally important areas of high nature conservation value including one National Nature Reserve (NNR) at Gordano Valley. The area also has twenty five Sites of Special Scientific Interest (SSSIs) and 46 designated Sites of Nature Conservation Interest (SNCIs); both Structure Plan and Local Plan policies protect these sites.

2. Progress

2.1. Summary of progress

When the first Annual Review was published in 2000, 50 of the 70 actions set out in the Action Plan had been started or completed, and 14 new actions were added. Of the 68 actions in this review, progress has been made on all but 15 actions. This progress is summarised in Figure 1.

Figure 1: Summary of progress to date (%)



1998-1999 shows the progress reported in the first Annual Review. 2000-2001 shows subsequent progress. Since the Action Plan was published in 1998, 23 new actions have been added in total and 33 have been completed.

2.2. Key achievements

- **Air quality**

One of the Agency's key responsibilities is to prevent pollutants from major industrial processes being released into the environment. We have been seeking to reduce the emissions of volatile organic compounds (VOCs), which are a precursor in the formation of ground level ozone. Whereas ozone in the upper atmosphere protects the earth from ultraviolet radiation, ground level ozone can be a harmful pollutant, damaging crops and building materials, and can also cause respiratory difficulties.

Volatile organic compound releases from Integrated Pollution Control (IPC) processes are controlled by limits in authorisations. These limits have been reduced over time as operators have moved towards new plant standards.

The progress made within the North Somerset catchment is shown in Figure 2. Two operators have achieved zero VOC emissions for 2000, while the third, Praxair, have now installed abatement equipment that should ensure zero emissions next year.

Figure 2: Volatile Organic Compound (VOC) emissions (Kgs)

Part A Process Operator	1996 Result	1997 Result	1998 Result	1999 Result	2000 Result	2001 Target
FHL Claverham (previously Fairey Hydraulics)	2527	1693	900	393	0	0
Praxair Surface Technologies, Weston-Super-Mare	N/A	N/A	4000	3200	3200	0
GKN / Westland Industrial Products Ltd, Weston-Super-Mare	9000	11930	5762	1119	0	0

- Bathing water quality**

The European Union Bathing Water Directive sets mandatory Imperative standards and more stringent Guideline standards for bathing waters; compliance with Guideline standards is one of the criteria taken into account by the Tidy Britain Group when awarding Blue Flags. The Agency is required to sample and analyse bathing waters under the requirements of the Directive.

The quality of bathing waters is one of the Government's sustainable headline indicators; the aim is to achieve 97% compliance with the Imperative standards by 2005. In the South West Region as a whole, the rate of compliance with the Imperative standards for 2000 was 95.7%, representing the best ever rate of compliance and a substantial improvement compared to last year when the rate of compliance was 90.8%. The South West also has the best record for compliance against Guideline standards compared to any other region, with an improvement from 45% compliance in 1999 to 61.5% in 2000.

For the North Wessex Area, this translates to a 9.1% improvement on 1999 compliance for both standards. Within the North Somerset Rivers catchment all the monitored sites complied with the Imperative guidelines for the third year running although none met the Guideline standards.

Figure 3: Bathing water monitoring results 1997-2000 (Imperative standards)

Bathing Water	1997	1998	1999	2000
Clevedon Beach	Pass	Pass	Pass	Pass
Weston-Super-Mare Sand Bay	Pass	Pass	Pass	Pass
Weston-Super-Mare Main	Pass	Pass	Pass	Pass
Weston-Super-Mare Uphill Slipway	Fail	Pass	Pass	Pass

- Water resources**

One of the Agency's roles is to protect the water environment (lakes, rivers and wetlands) from over-abstraction and consider the needs for water of the public, agriculture and industry. We are not responsible for the supply of water to households but work closely with water companies to ensure the best possible use of available resources. The Agency requires the water companies to produce Water Resources Plans, which set down how they plan to maintain water supplies, looking 25 years ahead. The Office of Water Services (Ofwat) also require water companies to produce Asset Management Plans that set out their planned improvements with the emphasis on the first five years of the plan.

Bristol Water is responsible for supplying mains water to this area. Ofwat announced their final determination on prices, prepared with the help of the asset management plan produced by the company, in November 1999. The determination set out the investment programme and charges the company may make for the five-year period from April 2000. It allowed for expenditure to take action or investigate where abstraction causes, or is suspected of causing, damage. Such sites are included in the National Environmental Programme.

In September 2000 Bristol Water also submitted to the Agency the first annual review of their water resources plan. The Agency's national and regional water resources strategies were published in March 2001. These documents set out a framework for managing the long-term use of water to 2025 (see section 4.13).

- **River Water Quality**

Chemical water quality sampling between 1997 and 1999 has shown a 33% improvement in quality since 1990, and identify the quality of rivers in the South West of England as the best in the country.

While the River Quality Objectives for North Somerset Rivers are quite low, this is symptomatic of the natural state of some rivers in the catchment. This is because the rivers have very low gradients in their lower reaches and are penned (temporarily dammed) to hold back water for irrigation. The waters tend to stagnate and develop low oxygen levels. However, the monitoring results for 1999 has shown that there has been a significant improvement in water quality in North Somerset since 1998. There were no significant failures in 1999 and a small reduction in the length of river with marginal results. Marginal results were caused by either dissolved oxygen or ammonia levels. In total the length of monitored river compliant with it's River Quality Objective increased from 65.2% in 1998 to 74.4% in 1999. The compliance of individual stretches is given in Appendix 5.1 and illustrated on Map 2.

- **North Somerset Levels and Moors Project**

The Agency's main input to biodiversity projects in this catchment is through commitment to the North Somerset Levels and Moors Project. We contribute to this partnership project by providing approximately 30% of the salary of the Project Officer. Last year the project delivered training for the National Otter Survey which identified many good otter sites. Further planned work includes an otter pass for Blagdon Lake Weir, water vole survey and tree planting schemes (see action 6.1.2).

2.3. Disappointments

- **Hurditch's Sea Defence scheme**

The Hurditch's Sea Defence design has been completed and incorporates an appropriate sea level rise allowance, in order to meet the rise in sea level expected as a result of climate change. However, this is a lower priority non grant-aided scheme and has slipped down the long-term plan for capital projects and is now scheduled for post-2006.

2.4. Resources

Nationally the Agency spends over £600 million each year on protecting and improving the environment. Approximately 75% of this is derived from our own charges, principally in the form of licence fees, and the flood defence levy on local authorities which covers part of the cost of our Flood Defence function. The remainder is funded by Government grants; our main sponsor in Government is the Department of the Environment, Transport and the Regions (DETR). The Agency also has links to the Ministry of Agriculture, Fisheries and Food (MAFF) and the National Assembly for Wales.

All our charges are reviewed annually and are assessed through consultation. Charge proposals are subject to approval by the Secretary of State, and Regional Flood Defence Committees approve flood defence levies.

The following figures (Figure 4) from the North Wessex Area Business Plan 2000/2001 have been included to give an indication of available resources and expenditure on Agency functions, to provide a context for spending priorities. A large proportion of this is used to undertake work required of us by legislation and regulation, and by the Agency's own requirements which apply nationally. This includes committing substantial resources to everyday monitoring and management of the environment. Remaining resources are used to undertake other environmental works throughout the area on a priority basis, reviewed annually as part of our business planning process.

Figure 4: North Wessex Area expenditure 2000/01

Function	Area Expenditure
Environment Planning	£ 1,147,000
Environment Protection	£ 1,810,000
Flood Defence & Water Resources	£ 5,165,000
Fisheries, Ecology & Recreation	£ 754,000

2.5. Priorities

The issues identified in this plan have arisen despite our considerable statutory work and the work of other organisations. Some issues can be resolved by reprioritising and redirecting our resources within our statutory work programme, sometimes requiring the help and co-operation of other bodies. Other issues require action over and above our statutory work and funding; resources for this work are not certain and matched project funding is usually required in these cases. Some issues require solutions beyond the scope of our existing budgets or technology. However, these are still valid issues and so are included in this plan in the hope that a solution may be found in the future.

Although the Action Plan period is for five years, because of the short-term nature of our funding, we can often only firmly commit ourselves to actions in the current and next financial years. Our priorities, policies and budget may change, so changing our action programme. The actions in this plan will be prioritised, together with those from our other LEAP areas and other proposed actions, as part of our Annual Business Plan process.

3. Actions update

3.1. Completed actions

The following actions were reported as complete in the First Annual Review and so have now been removed from the list of current actions. Actions may be reinstated if an issue, which has currently been resolved, appears to have again become a problem in the future. Please see the First Annual Review for details on how each action has been completed.

Action	Status
3.1.1. Reduce Agency North Wessex Area business mileage by 5% and our overall fuel efficiency by 3 miles per gallon on our 1996/97 levels.	Completed. See new action 3.1.6.
3.1.2. Reduce Agency North Wessex Area electricity consumption in our offices and depots by 20% compared to Energy Efficient Office (EEO) typical, or 1991/92 consumption, whichever is lower.	Completed. See new action 3.1.6.
3.1.3. Reduce methane emissions from landfills as part of a review of landfill site licences.	Completed. We will continue with regular monitoring as part of our routine duties.
4.1.2. As action 3.1.1.	As action 3.1.1.
5.1.1. Manage demand: we will work with the water companies to identify any problems of meeting demands in this Resource Zone and consider practicable solutions.	Completed. Replaced by action 5.1.7.
5.1.2. Manage demand: we will monitor and encourage implementation of water company efficiency plans.	Completed. Replaced by action 5.1.8.
5.1.3. Manage resources: we will encourage the water companies to actively reduce leakage to economic levels.	Completed. Replaced by action 5.1.9.
5.1.4. Work with water supply companies to prioritise expenditure on water resource management and development. Ensure the Agency's demand management targets are met.	Completed. Replaced by action 5.1.10.
5.1.5. Reduce our North Wessex Area office water consumption to 30% below the industry accepted target per office employee (this does not apply to depots).	Completed. See new action 3.1.6.
6.1.1. Habitats Directive: following advice from English Nature, review current abstraction licences and consents to discharge in relation to Natura 2000 sites as required by the EU Habitats Directive.	Replaced by new actions 6.1.18 - 6.1.20.
6.1.9. Otters: enhance habitats.	Completed. Replaced by new action 6.1.21.
7.1.3. Assess fish stocks in the Congresbury Yeo.	Completed. The survey took place in 1999.
8.3.1. Review flood defence maintenance and develop Flood Defence Management System.	Completed. The report on flood defence maintenance practices was published July 1999.
8.3.2. Survey assets: classify upland river reaches in accordance with the Standards of Service Land-use bands and targets.	Completed. The river reach classification was completed January 2000.

8.3.3. The current state of flood protection will be compared to the standards in 1998 and differences addressed.	Completed. This is likely to result in changes to maintenance and some stretches may require capital schemes.
8.4.1. Install automatic monitors on the Land Yeo downstream from suspected discharges.	Completed. No problematic discharges were identified.
8.4.2. Revisit all farms where there is a suspected waste problem to ensure that farm waste management is effective, and take enforcement action against farms which discharge illegally.	Completed. A campaign took place in the Land Yeo upper catchment.
8.4.3. Monitor the discharge from Monaghan Middlebrook Mushrooms Ltd and Langford Brook downstream of the site to check effectiveness of the new arrangements.	Completed. Routine inspections will continue.
8.5.1. Determine consent for Bristol Water to discharge into a tributary of the Land Yeo.	Completed. The consent was issued January 1999.
8.6.4. Explore the use of Agency-owned land to extend the Two Rivers Way west of Congresbury Road Bridge.	Completed. The action was resolved without the use of Agency-owned land.
8.7.1. Continue to assess the impact on the landscape character of the river corridors where alder disease may have a significant impact on the visual amenity.	Completed. We will review the situation should it change in the future.
8.8.1. Review data from the water companies on the occurrence of sheep dip in raw waters for potable supply.	Completed. No current problem was identified.
9.1.2. Negotiate appropriate tidal defence provision and adopt for maintenance when acceptable, in the Portishead Action Area.	Completed. New tidal defences have been constructed and adopted for maintenance by the Agency.
10.1.1. Contribute to National Waste Survey by collecting data in this plan area.	Completed. The data collected by the survey has been used in the production of the Waste Strategy for England and Wales, published by the DETR in May 2000.

3.2. New issues and actions

LEAPs are evolving documents and, following the current review, 9 new actions have been included, reflecting the ongoing development of the plan and addressing new concerns.

Theme	New Action
Climate Change	3.1.5. Consider the adequacy of sea defences at Clevedon and Weston-Super-Mare.
Climate Change	3.1.6. At an area level, contribute to the achievement of Agency national internal environmental improvement targets.
River Basin Management	8.4.4. Assess and map existing data on diffuse pollution to identify gaps in knowledge, identify major sources and inform the way forward.
River Basin Management	8.4.5. Set up flow monitoring at all sites where required for load analysis of nutrients to address areas where we currently have insufficient information.
River Basin Management	8.4.6. Set up a database of all land spreading activities registered for exemption from Waste Licensing and map the sites used frequently. This will be used to promote better practices in off-farm waste spreading.

River Basin Management	8.6.7. The Agency is hoping to contribute towards the creation of circular access routes in the Gordano Valley in partnership with others.
River Basin Management	8.9.1. Report on annual bathing water survey results.
Conserving the Land	9.1.7. Produce a Catchment Flood Management Plan for the North Somerset LEAP catchment. Issues from the Plan will be included in future LEAP reviews.
Major Industry	11.1.1. Determine a PPC application from IET Energy to operate a gasification / pyrolysis plant in Weston-Super-Mare.

3.3. Themes and Issues

The following tables (3.4) provide a summary of our progress to date on current actions which are divided by nine broad themes, which were identified in the Environmental Strategy (see section 1.2):

Climate change	Air quality
Water resources	Biodiversity
Fisheries	River-basin management
Conserving the land	Waste
Major industry	

River basin management encompasses several discrete issues that have been identified as having an impact within the catchment:

- 8.1. Decline in water quality
- 8.2. River regulation and nutrient enrichment
- 8.3. Impact of river maintenance
- 8.4. Impact of agricultural discharges and runoff¹
- 8.5. Barrow reservoirs and treatment works
- 8.6. Recreational use of Agency-owned land and water
- 8.7. Riverside landscapes²
- 8.8. Impact of synthetic pyrethroid sheep dip
- 8.9. Bathing water quality

Conserving the land covers the following issues:

- 9.1. Flood defence and development
- 9.2. Soil erosion²
- 9.3. Nitrate pollution²
- 9.4. Contaminated land²
- 9.5. Soil acidification²

¹The original actions under this issue have been completed, but new actions have been added under the Agency's diffuse pollution project. The project will also address other issues such as nutrient enrichment and soil erosion, subject to funding.

²These issues appear in the Action Plan but do not have any current actions in place in the Annual Review, or the actions have been completed (see section 3.1).

3.4. Progress report

The following action tables summarise the Agency's progress to date. Where possible, the costs of actions have been given. Costs are only our estimates of costs to the Agency. They do not indicate that this money has been committed. The costs shown are indicative only, to give an idea of the relative size and resource implications of each action. All costs are given as thousands of pounds (£k) and include an estimation of staff time.

The years covered by the plan are represented by a single date. For example, '2001' represents the financial year April 2001 to March 2002. The status of each action is identified as **C** Complete, **S** Started, **D** Delayed and **N** New.

The Agency often works with others to ensure that the actions in this plan are implemented, and so each action identifies the partner organisations involved. The Agency also seeks opportunities to establish new links with other organisations that influence or affect the environment.

Theme: Climate Change

Action 3.1.4

Ensure Hurditch's Sea defence is constructed to latest standard incorporating a sea level rise allowance (2003/04).

Progress D

The Hurditch's Sea Defence design has been completed and incorporates an appropriate sea level rise allowance. This is a lower priority non grant-aided scheme and has slipped down the long-term plan for capital projects and is now scheduled for post-2006.

Cost: £620k

Action by: Agency

Time scale: 2006

Contact: Team Leader Flood Defence Improvements

Action 3.1.5

Consider the adequacy of sea defences at Clevedon and Weston-Super-Mare.

Progress N

New action.

Cost: £3m

Action by: North Somerset Council, Agency

Time scale: 2006

Contact: Team Leader Flood Defence Improvements

Action 3.1.6

At an area level, contribute to the achievement of Agency national internal environmental improvement targets to fulfil our commitments under the Greening Government Initiative and to meet the UK's targets to reduce the impact of climate change (section 4.9).

Progress N

New action. At the year end 2000/01 the Bridgwater office met Agency internal targets for energy and water, using less than the previous year. Business mileage was also down, achieving 4.6% better results than the target figure for the South West Region. These reductions have been achieved through initiatives such as the installation of waterless urinals, sprinkler taps, movement detector lights and solar light sensors. Our recent refurbishment has also made use of environmentally friendly materials and recycled carpets, which saved a minimum of 15 tonnes going to landfill.

Cost: Unknown

Action by: Agency

Time scale: 2001-2005

Contact: Area Business Services Manager

Theme: Air Quality

Action 4.1.1

Ensure emissions to air from Part A processes are reduced as detailed above.

Progress S

In 1999 FHL eliminated its use of trichloroethylene in its Part A prescribed process, and Praxair installed a VOC abatement system during November 2000 (see Figure 2 in section 2.2).

Cost: £16k p.a.

Action by: Agency, process operators

Time scale: 2000-2002

Contact: Team Leader PIR/RSR

Action 4.1.3

Report local authority air quality monitoring results in future LEAP Annual Reviews.

Cost: Nil

Action by: Agency, North Somerset Council

Progress S

We will continue to report Local Authority air quality monitoring results as they become available (First Annual Review).

Time scale: 2000-2002

Contact: Team Leader LEAPs

Theme: Water resources

Action 5.1.6

Improve the environmental awareness of local councillors and developers (see also action 9.1.6).

Cost: £2k

Action by: Agency

Progress C

Planning Liaison and Development Control staff met with council officers and councillors to present and discuss environmental planning issues in the North Wessex Area. Liaison will continue with both local councillors and developers as an ongoing routine process.

Time scale: 2000-2001

Contact: Customer Services Manager

Action 5.1.7

Manage Demand: monitor progress that companies make towards implementing their water resource plans and continue to work with the companies to ensure that the plans are reviewed and updated to achieve and maintain an acceptable balance between supply and demand.

Cost: £0.2k

Action by: Agency, Bristol Water

Progress S

The annual review of the water resources plan was submitted by Bristol Water in September 2000. It shows that they have an acceptable supply/demand balance in keeping with that shown in their 1999 plan.

Time scale: 2000-2002

Contact: Team Leader Water Resources

Action 5.1.8

Manage Demand: monitor and encourage implementation of water efficiency measures.

Cost: £0.2k

Action by: Agency, Bristol Water

Progress S

The Agency is pleased with the effort that Bristol Water has made on water efficiency. Activities include advertising; promotions; open days; education; web site; water audits; research/development and water management awards.

Time scale: 2000-2002

Contact: Team Leader Water Resources

Action 5.1.9

Manage Demand: monitor and encourage activity to reduce and achieve target levels of leakage.

Cost: £0.2k

Action by: Agency, Bristol Water

Progress S

Bristol Water reported leakage of 54 MI/d (Million litres per day) in 1999/2000, within the target of 54.8 MI/d set by the Office of Water Services (OfWat).

Time scale: 2000-2002

Contact: Team Leader Water Resources

Action 5.1.10

Liaise with companies to prioritise their expenditure between water resource management and development.

Cost: £0.2k

Action by: Agency, Bristol Water

Progress S

The Agency is satisfied that Bristol Water continues to properly prioritise their expenditure on water resource management and development. This is reflected in the annual update of their water resources plan.

Time scale: 2000-2002

Contact: Team Leader Water Resources

Theme: Biodiversity

Action 6.1.2

Biodiversity Action Plan: work with North Somerset Council on their forthcoming Biodiversity Action Plan.

Progress S

North Somerset Council is currently working on its Biodiversity Action Plan, which is due imminently. The Agency has a number of actions for water vole, otter, rivers and streams, and coastal floodplain and grazing marsh, as well as actions in the South West Regional Biodiversity Action Plan. The Agency has continued to be involved with the North Somerset Levels and Moors Project, which has participated in the National Otter Survey; training was provided and a training pack produced, and many good otter sites were found. An otter pass is also planned for Blagdon Lake weir in the next financial year. Further work planned includes survey for water vole, River Habitat Survey and tree planting schemes.

Cost: £5k p.a.

Time scale: 2000-2002

Action by: Agency, North Somerset Council, English Nature, The Wildlife Trust

Contact: Team Leader Conservation

Action 6.1.3

We are continuing to contribute to the development of Water Level Management Plans within the North Somerset Catchment.

Progress S

The Agency's contribution to the North Somerset Internal Drainage Board (IDB) Water Level Management Plan is complete. We have also contributed to the West Mendip IDB plans and the Gordano IDB plan.

Cost: £4.4k p.a.

Time scale: 2001-2002

Action by: Agency, Internal Drainage Boards

Contact: Team Leader Conservation

Action 6.1.4

Reedbeds: help to promote reedbed habitat creation in partnership with others e.g. North Somerset Levels and Moors Project. Provide technical advice on the use of reedbeds as part of the stormwater attenuation and treatment systems associated with development (see also action 9.1.5).

Progress S

We continue to provide advice to developers on surface water attenuation using reedbeds and other sustainable urban drainage systems through the Agency's involvement in the planning process.

Cost: £2k p.a.

Time scale: 2000-2002

Action by: Agency, North Somerset Council, North Somerset Levels and Moors Project, Wessex Water, Internal Drainage Boards

Contact: Team Leader Conservation

Action 6.1.5

Tufa Streams: survey tufa-depositing springs and headwater streams to assess value and develop conservation strategy.

Progress D

No progress due to lack of funding.

Cost: £3k

Time scale: 2000-2001

Action by: Agency, Bristol Regional Environmental Records Centre (BRERC), The Wildlife Trust

Contact: Team Leader Conservation

Action 6.1.6

Water voles: increase our knowledge of distribution and investigate the main reasons for the absence of water voles from large areas of the catchment, in partnership with others.

Cost: £3k

Action by: Agency, North Somerset Levels and Moors Project and project partners

Action 6.1.7

Otters: develop a partnership to monitor otter populations.

Cost: £3k

Action by: Agency, North Somerset Levels and Moors Project and project partners

Action 6.1.8

Otters: establish otter corridor links to adjacent catchments through habitat creation.

Cost: £5k

Action by: Agency, North Somerset Levels and Moors Project and project partners

Action 6.1.10

Otters: collect carcasses of otter road casualties and send for tissue analysis.

Cost: £1k p.a.

Action by: Agency

Action 6.1.11

Barn Owls: extend scheme to provide and monitor nest boxes and manage habitat to encourage voles on Agency-owned land on the Blind Yeo.

Cost: £2.5k p.a.

Action by: Agency, Hawk and Owl Trust

Action 6.1.12

Native Crayfish: extend survey work, particularly within the Upper Congresbury Yeo and Land Yeo catchments, to enable the formulation and implementation of a local crayfish conservation strategy.

Cost: £2-3k

Action by: Agency

Progress S

Water vole survey is planned for next year via the North Somerset Levels and Moors Project.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress S

The North Somerset Otter Group was established in May 2000, and has produced some good survey results to date. Volunteers have been trained in survey and a training pack was produced through the North Somerset Levels and Moors Project (see action 6.1.2).

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress S

There has been no further progress to date. Further works may be identified in partnership with the North Somerset Levels and Moors Project.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress S

This is an ongoing action. One otter corpse was collected from the catchment in 1999, and none were reported to the Agency in 2000. The corpses are sent to a veterinary investigation centre for a post mortem, the results of which are passed on to the Agency.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress D

This action has not been carried out to date due to lack of funds.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress D

This action has not been carried out to date and is awaiting funding and availability of staff time. We are planning to undertake an initial survey in 2002.

Time scale: 2000-2002

Contact: Team Leader Biology

Action 6.1.13

Great Crested Newts: undertake a desktop survey to enable the formulation and implementation of a conservation strategy.

Cost: £1.5k

Action by: Agency, Bristol Regional Environmental Records Centre

Action 6.1.14

Eels: implement recommendations of Barriers to Migration Survey.

Action 6.1.15

Continue to assess and monitor the distribution of invasive and alien plants and problems associated with alder disease.

Cost: £4k

Action by: Agency, North Somerset Levels and Moors Project, Bristol Regional Environmental Records Centre, Avon Wildlife Trust, Forest of Avon, Local Authorities

Action 6.1.16

River Habitat Survey: interrogate the database and report back on the findings in the next annual review.

Cost: £1k

Action by: Agency

Action 6.1.17

Coastal and Floodplain Grazing Marsh: take the Water Level Management Plans forward through the implementation programme, and other actions through the Agency's involvement as a partner for the South West Habitat Action Plan.

Cost: Unknown

Action by: Agency, North Somerset Levels and Moors Project, English Nature, Internal Drainage Boards

Action 6.1.18

Habitats Directive: review current and new abstraction licences in relation to Natura 2000 sites in the catchment.

Cost: Unknown

Action by: Agency

Progress C

We will continue to seek safeguards for any sites affected by development where we are aware that protected species are present. We will typically make potential developers aware of legal constraints and advise contact with the appropriate English Nature species protection officer. As this will be achieved through routine activities, and the species is protected by legislation, this action has been closed.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress S

See action 7.1.2.

Progress S

The Agency continues to raise awareness and give advice on these issues. However, there have been no reported problems and therefore no further action has been taken.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress D

No action to date.

Time scale: 2000-2001

Contact: Team Leader Conservation

Progress S

The North Somerset Levels and Moors Project will look at a number of potential sites for Countryside Stewardship.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress S

The assessment of new abstraction licences is underway.

Time scale: 2000-2002

Contact: Team Leader Conservation

Action 6.1.19

Habitats Directive: review current and new consents to discharge in relation to Natura 2000 sites in the catchment.

Cost: Unknown

Action by: Agency

Action 6.1.20

Habitats Directive: review impact of current and new operational activities in relation to Natura 2000 sites in the catchment.

Cost: Unknown

Action by: Agency

Action 6.1.21

Otters: identify new opportunities for enhancing habitats within the catchment via the North Somerset Levels & Moors Project.

Cost: £5k

Action by: Agency, North Somerset Levels and Moors Project and project partners

Progress S

The assessment of new consents to discharge is underway. We have also identified which existing consents require further input.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress S

The assessment of new operational activities is underway.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress S

The North Somerset Levels and Moors Project is working closely with landowners and through the Countryside Stewardship Scheme, which may provide scope for habitat enhancement, e.g. otter holts.

Time scale: 2000-2002

Contact: Team Leader Conservation

Theme: Fisheries

Action 7.1.1

Contribute to national research & development to investigate the effect of river control structures on fisheries. The loss of fish stocks out of river systems during high flood flows is reported anecdotally by fishermen for several of the Somerset coastal watercourses. Coarse fish have reportedly been sighted out in the Severn Estuary. Within this LEAP, the issue has been raised in relation to the River Kenn by the angling club. The problem is said to occur when sluices or gates are opened rapidly during high rainfall to avert flooding.

Cost: Unknown

Action by: Agency

Action 7.1.2

Implement Barriers to Migration survey (eels and elvers), subject to funding.

Cost: Unknown

Action by: Agency

Progress D

Fish will no doubt pass out of rivers to the Severn Estuary and coarse fish do occupy the Estuary itself further upstream. The rivers within this catchment generally support good fisheries and it is difficult to evaluate the significance overall of these reported and inferred losses. A project looking into fish losses generally from rivers was proposed for the national programme but was not funded. A national project looking generally at the survival of coarse fish within rivers may provide a route for looking at this phenomenon, but currently funding is limited.

Time scale: Unknown

Contact: Team Leader Fisheries

Progress S

This action is recognised within the Agency's Eel Strategy. We will aim for eel-friendly designs for any future new structures and consider cost-effective solutions at existing structures, though no structures within this area have specifically been identified for modification. Experimentation with elver passes has been trialed at a location in North Wessex to investigate cost-effective techniques.

Time scale: 2000-2004

Contact: Team Leader Fisheries

Action 7.1.4

Draw up improved strategy for river maintenance to reduce harm to fisheries.

Cost: £1.5k

Action by: Agency

Action 7.1.5

Contribute to a national review of licence duties for eel and elver fishing.

Cost: Unknown

Action by: Agency

Action 7.1.6

Establish the frequency of algal blooms, the extent of eutrophic effects and the source of excess nutrients.

Cost: £2-4k

Action by: Agency

Progress D

No plans to draw up this strategy currently exist. The Somerset Levels and Moors Water Level Management Action Plan Review included an action to extend the Review to North Somerset Moors in 2001, and may address this issue.

Time scale: 2001-2006

Contact: Team Leader Flood Defence Operations

Progress C

The Agency carried out a consultation on a 'draft eel net licensing system, duties and byelaws' in 2000. The consultation ended in August and the final proposals are expected in 2001. Any byelaw and licence change would need to be advertised and ratified by the Ministry of Agriculture, Fisheries and Food before implementation.

Time scale: 1998-2002

Contact: Team Leader Fisheries

Progress D

Initial investigations are planned for the summer of this year (2001), depending on the foot and mouth situation. Further investigations will depend on the findings of the preliminary work.

Time scale: 2000-2002

Contact: Team Leader Biology

Theme: River-basin management

Issue 8.1: Decline in water quality

Action 8.1.1

Review the River Quality Objectives (currently River Ecosystem 5) for the stretch: Land Yeo - Clevedon to sea.

Cost: £3k

Action by: Agency

Progress S

The quality of this stretch of water is significantly influenced by the flow of water in the Land Yeo through Clevedon. For many years, the majority of the flow in the Land Yeo has been diverted via the Yearling Ditch to the Blind Yeo at times. The Agency is exploring a partnership approach to the resolution of this issue, balancing the needs of all users of the river through Clevedon and continuing to minimise the risk of flooding. To this end we are seeking to appoint a consultant to investigate the issues and current situation on the Land Yeo. This will result in an options for change report.

Time scale: 2000-2002

Contact: Team Leader Environmental Protection

Action 8.1.2

A full review of all factors affecting water quality, including flow, on those stretches with River Quality Objectives of River Ecosystem 4 and 5 as proposed objectives.

Progress S

Some progress has been made on assessment of factors influencing quality. We do not now believe that potable water abstraction affects quality in the rivers with River Ecosystem 4 and 5 objectives. It is likely that these objectives simply reflect the quality to be expected of low-lying, slow flowing rivers draining agricultural land.

Cost: £8k

Time scale: 2000-2002

Action by: Agency, Internal Drainage Boards

Contact: Team Leader Environmental Protection

Issue 8.2: River regulation and nutrient enrichment

Action 8.2.1

Establish the extent of eutrophic effects.

Progress D

See action 7.1.6 and also 8.2.2.

Action 8.2.2

Work with others to reduce nutrient levels by controlling point sources and diffuse agricultural pollution. Once the source of nutrients has been pinpointed, we will target specific campaigns in those areas, including the promotion of buffer strips where possible.

Progress S

We continue to provide advice to farmers and seek to reduce point source inputs and the impact of diffuse agricultural runoff (see also section 8.4).

Cost: £0.5k p.a.

Time scale: 2000-2002

Action by: Agency, farmers, Ministry of Agriculture, Fisheries and Food, Farming and Wildlife Advisory Group

Contact: Team Leader Environmental Protection

Action 8.2.3

Improve our regulation of the spreading of waste to land to prevent water pollution. Identify any trouble spots.

Progress S

There have been no known problems in the last year (see also action 8.4.6).

Cost: £2k p.a.

Time scale: 2000-2002

Action by: Agency, farmers, Ministry of Agriculture, Fisheries and Food

Contact: Team Leader Environmental Protection

Action 8.2.4

Review control of penning structures through the Water Level Management Plan process and identify opportunities for raising water levels.

Progress S

Following review, the Water Level Management Plans are now to be implemented.

Cost: Unknown

Time scale: 2000-2002

Action by: Agency, Internal Drainage Boards

Contact: Team Leader Flood Defence Improvements

Action 8.2.5

Consider the provision of additional storage volume to provide more irrigation water.

Progress D

This action is a low priority and no progress has yet been made due to a lack of funding. The Somerset Levels and Moors Water Level Management Action Plan Review included an action to extend the Review to North Somerset Moors in 2001, which may address this action.

Cost: Unknown

Time scale: 2000-2002

Action by: Agency

Contact: Area Flood Defence and Water Resources Manager

Issue 8.3: Impact of river maintenance

Action 8.3.4

Seek resources to re-engineer channels and floodbanks to provide a more natural shape and improved habitat diversity as need or opportunity arises.

Cost: Unknown

Action by: Agency, riparian owners, developers, North Somerset Council

Action 8.3.5

Explore tree-planting opportunities and implement where funding becomes available to provide shade and reduce the need for aquatic weed cutting as appropriate sites are identified. The riparian owner's agreement is needed; maintenance access should not be blocked and the planting should not damage an important habitat.

Cost: £0.5k

Action by: Agency, Farming and Wildlife Advisory Group, landowners, Internal Drainage Boards, North Somerset Levels and Moors Project

Progress D

This action is a low priority and no progress has been made to date due to a lack of funding.

Time scale: 2000-2002

Contact: Area Flood Defence and Water Resources Manager

Progress S

Opportunities for tree planting are being identified and will be implemented when funding becomes available. No further progress has been made by the Agency.

Time scale: 2000-2002

Contact: Team Leader Conservation

Issue 8.4: Impact of agricultural discharges and runoff

Action 8.4.4

Assess and map existing data on diffuse pollution to identify gaps in knowledge, identify major sources and inform the way forward.

Cost: £0.5k across North Wessex Area

Action by: Agency

Action 8.4.5

Set up flow monitoring at all sites where required for load analysis of nutrients to address areas where we currently have insufficient information.

Cost: Unknown

Action by: Agency

Progress N

New action. Some progress has already been made. All sites receiving sewage sludge for spreading are being identified. Water quality, fisheries and biology data has been analysed to define the impact of diffuse pollution in the North Wessex Area, and will be used to draw up a list of area-specific actions. Future action is likely to include identifying and mapping areas of nutrient enrichment of ground water and soils and soil erosion.

Time scale: 2001-2002

Contact: Team Leader Environment Protection

Progress N

New action. Implementation will depend on the outcome of work under action 8.4.4 and on the availability of funding.

Time scale: 2001-2005

Contact: Team Leader Environment Protection

Action 8.4.6

Set up a database of all land spreading activities registered for exemption from Waste Licensing and map the sites used frequently. This will be used to promote better practices in off-farm waste spreading.

Cost: £4k

Action by: Agency

Progress N

New action. Work has already begun on setting up a database. Future activity will also focus on the need for funding for regulatory visits to land-spreading operations.

Time scale: 2001-2005

Contact: : Team Leader Environment Protection

Issue 8.5: Barrow reservoirs and treatment works

Action 8.5.2

Extend the monitoring downstream of the water treatment works.

Cost: £2k

Action by: Agency

Progress C

Following further concerns from downstream riparian owners, we initiated a new programme of monitoring of the Fairywell Brook downstream of the water treatment works. We used continuous monitoring equipment to look at both the quality of the brook and the level (flow) of water in it. These were both the subject of complaint. Over the period of 12-14 weeks that this equipment was in place we found no evidence of significant problems.

Time scale: 1998-2000

Contact: Team Leader Environment Protection

Action 8.5.3

Undertake a review of all aspects of the dry stretch below the works, and produce a report.

Cost: £10.5k

Action by: Agency

Progress S

The action has been included in a review of issues for which solutions are required within the next five years. A prioritised programme of work for all these issues is being prepared.

Time scale: 2000-2004

Contact: Team Leader Water Resources

Issue 8.6: Recreational use of Agency-owned land and water

Action 8.6.1

Complete production of a Conservation and Recreation Management Plan for the Blind Yeo.

Cost: £2k

Action by: Agency

Progress S

An internal draft has been produced. The project is now on hold while we seek external funding.

Time scale: 2000-2002

Contact: Team Leader Conservation

Action 8.6.2

Implement Blind Yeo Conservation and Recreation Management Plan.

Cost: £10k

Action by: Agency

Progress D

The plan will need to be completed prior to implementation. See action 8.6.1.

Time scale: 2000-2002

Contact: Team Leader Conservation

Action 8.6.3

Investigate feasibility of developing canoe access where appropriate.

Cost: Unknown

Action by: Agency, British Canoe Union

Progress D

No progress on this action to date.

Time scale: 2000-2002

Contact: Team Leader Fisheries

Action 8.6.5

Complete site assessments for our land holdings in North Somerset.

Cost: £1k

Action by: Agency

Action 8.6.6

Undertake a risk assessment where and when the Agency is proposing to promote recreational use of its land.

Cost: £1k

Action by: Agency

Action 8.6.7

The Agency is hoping to contribute towards the creation of circular access routes in the Gordano Valley in partnership with others.

Cost: Nil

Action by: Agency, North Somerset Council, Avon Wildlife Trust, landowners

Progress C

This action has now been completed.

Time scale: 2000-2001

Contact: Team Leader Conservation

Progress S

No further sites have been proposed for recreational use at present. Should opportunities arise with other partners, the Agency will assist in promoting better access to its own land and water.

Time scale: 2000-2002

Contact: Team Leader Conservation

Progress N

New action.

Time scale: 2001-2002

Contact: Team Leader Conservation

Issue 8.8: Impact of synthetic pyrethroid sheep dip

Action 8.8.2

Implement targeted monitoring programme of surface waters.

Cost: £2k

Action by: Agency

Action 8.8.3

Establish the areas where sheep farming is prevalent and identify high-risk watercourses and groundwater sources.

Cost: £0.5k

Action by: Agency

Progress S

No new evidence of contamination of raw waters by sheep dip compounds. The anticipated monitoring of spring sources in 2000 did not occur due to resource constraints. We hope to be able to perform such monitoring in the summer of 2001.

Time scale: 2000-2001

Contact: Team Leader Environmental Protection

Progress D

A database of sheep farmers is still not available. In the absence of anything more useful, we will use the results of the raw water monitoring indicated in action 8.8.2 to target our efforts.

Time scale: 2000-2002

Contact: Team Leader Environmental Protection

Action 8.8.4

Carry out a sheep-dip awareness campaign in the areas identified in Action 8.8.3.

Progress S

The introduction of the Groundwater Regulations has given the Agency improved control over the disposal of spent sheep dip chemicals. There has not been a targeted awareness campaign, but we have performed some audit inspections of the facilities registered for authorisation. The size and nature of the targeted campaign will depend upon the findings of the raw water monitoring in action 8.8.2.

Cost: £2k

Action by: Agency

Time scale: 2000-2001

Contact: Team Leader Environmental Protection

Issue 8.9: Bathing water quality

Action 8.9.1.

Report on annual bathing water survey results.

Cost: Nil

Action by: Agency

Progress N

New action. See Figure 3.

Time scale: 2000-2002

Contact: Team Leader LEAPs

Theme: Conserving the land

Issue 9.1: Flood defence and development

Action 9.1.1

Agree a strategic and environmentally sustainable plan for the drainage and flood prevention infrastructure for all proposed and future land-use allocations within the River Banwell and Uphill Great Rhyne catchments.

Cost: Unknown

Action by: Agency, North Somerset Council

Progress C

The strategy has now been completed.

Time scale: 1998-2000

Contact: Team Leader Development Control

Action 9.1.3

Negotiate the provision of a strategic surface water disposal system for the Portishead Action Area.

Cost: Unknown

Action by: Agency, North Somerset Council, developer

Progress S

A strategic surface water disposal system has been agreed for Portishead. Agreement on the details are currently being worked up.

Time scale: 2000-2001

Contact: Team Leader Development Control

Action 9.1.4

Negotiate with interested parties an integrated strategy for linking land-use and coastal defence for the North Somerset Coast.

Cost: Unknown

Action by: Agency, North Somerset Council, Internal Drainage Boards

Progress C

The strategy has now been completed.

Time scale: 1998-2002

Contact: Team Leader Development Control

Action 9.1.5

Negotiate with interested parties an integrated approach to developers on drainage issues in the North Somerset Council area. We will also make use of the planning process to promote Sustainable Urban Drainage (SUDs) on new planning applications where appropriate (see also action 6.1.4).

Cost: Unknown

Action by: Agency, Water Companies, IDBs, North Somerset Council

Action 9.1.6

Improve the environmental awareness of local councillors and developers.

Action 9.1.7

Produce a Catchment Flood Management Plan for the North Somerset LEAP catchment. Issues from the Plan will be included in future LEAP reviews. See also section 4.11.

Cost: Unknown

Action by: Agency

Progress S

We have had input into the Local Plan and will continue to input to the Town and Country Planning process on all issues relating to flood risk and drainage. There are ongoing negotiations on detailed implementation.

Time scale: 2000-2002

Contact: Team Leader Development Control

Progress C

See action 5.1.6.

Progress N

New action.

Time scale: 2000-2002

Contact: Team Leader Flood Defence Strategic Planning

Theme: Waste

Action 10.1.2

Use consultants to investigate the impact on Cold Bath Spring of Hartcliffe Rocks and Dial Quarry landfills, investigate other possible sources of pollution and produce an action plan.

Cost: £10.5k

Action by: Agency, Bristol Water, site owners, operators

Action 10.1.3

Implement the action plan for Cold Bath Spring.

Cost: £30k

Action by: Agency, site owners, operators

Progress S

The Agency has now identified that the problems manifested at the spring cannot be investigated using supplementary credit approval funding from central Government. We are currently seeking alternative funding for investigating the cause of the problem. The cost of such investigations is likely to run into tens or perhaps hundreds of thousands of pounds, with no guarantee of success. In the meantime we continue to perform the investigations we are able to fund.

Time scale: 2000-2002

Contact: Team Leader Environmental Protection

Progress D

Implementation of the action plan will depend upon progress in 20.1.2.

Time scale: 2000-2002

Contact: Team Leader Environmental Protection

Action 10.1.4

The data collected by National Waste Production Survey will be used in the production of a Regional Strategic Waste Management Assessment. The assessment will use the same boundaries as used by the Regional Planning Conference.

Cost: Unknown

Action by: Agency

Progress C

The Regional Strategic Waste Management Assessment was published at the end of 2000, and will be used by local authorities to inform their waste disposal plans.

Time scale: 2000

Contact: Team Leader Tactical Planning

Theme: Major Industry

Action 11.1.1

We have received an application from IET Energy to operate a gasification / pyrolysis plant in Weston-Super-Mare. We will determine the application by the determination deadline (August 2001), either to refuse it or grant a permit with conditions.

Cost: £22k (application charge)

Action by: Agency

Progress N

New action.

Time scale: 2000-2001

Contact: Team Leader PIR/RSR

4. New legislation and initiatives

4.1. Habitats Directive

The *European Community Birds Directive* and the *Habitats and Species Directive* place responsibilities on the Agency in addition to our normal conservation duties. The aim of the legislation is to protect and conserve certain threatened species and habitats throughout Europe. This is to be achieved by the establishment of a network of nature conservation sites that will be known as the Natura 2000 Network. Natura 2000 sites are Special Protection Areas (SPAs) which are designated under the Birds Directive, and Special Areas of Conservation (SACs) which are designated under the Habitats Directive. It is Government policy that RAMSAR wetland sites (sites identified under the Convention on Wetlands of International Importance, which was ratified by the United Kingdom Government in 1976) will also be considered under the Habitats Regulations.

The Government has decided that once a possible Special Area of Conservation (pSAC) has been submitted to Brussels (i.e. it has become a candidate Special Area of Conservation or cSAC) the Regulations will apply. There are three sites in the North Somerset Rivers catchment, which will become part of the Natura 2000 network.

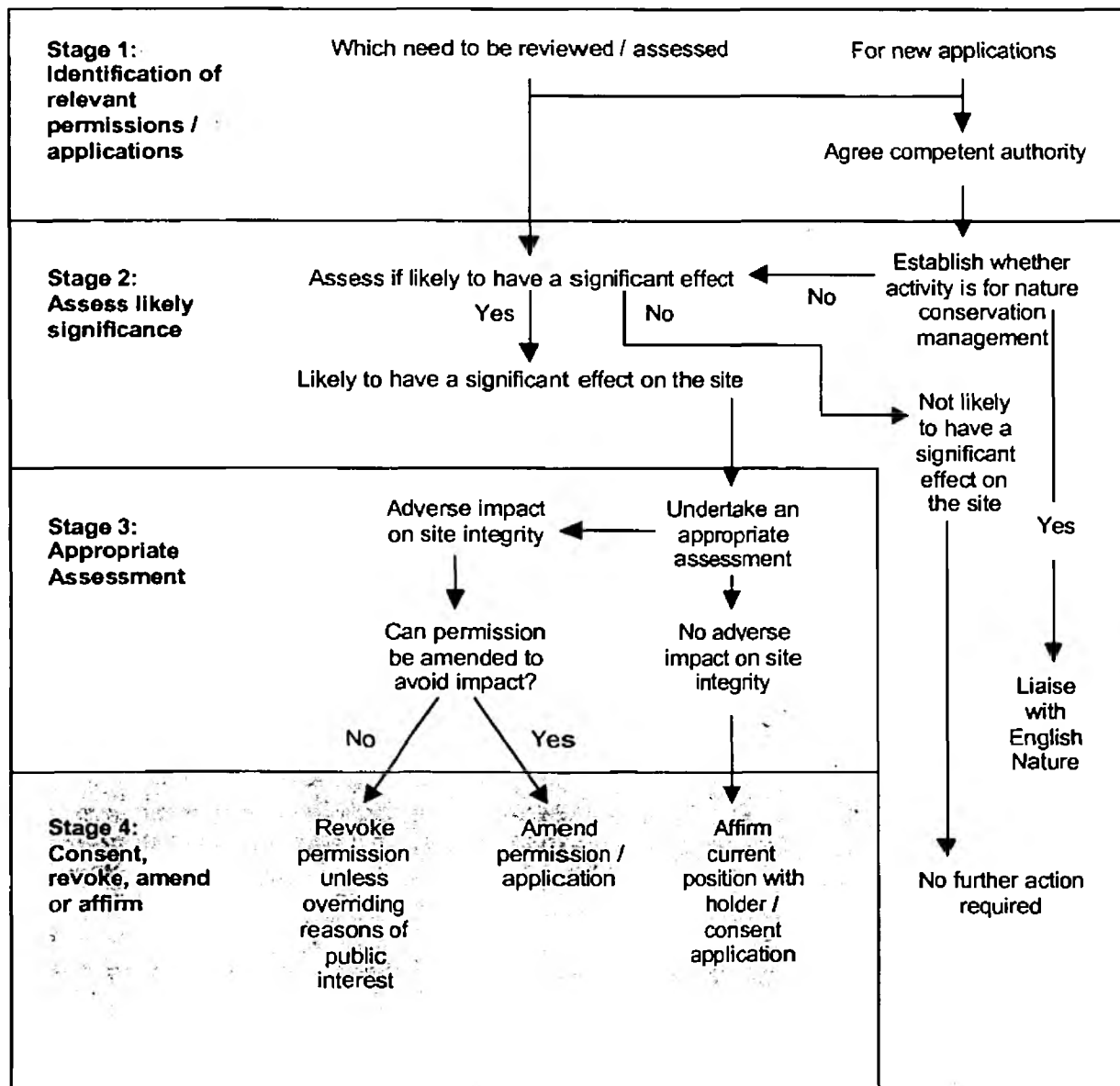
Figure 5: Natura 2000 sites in the North Somerset Rivers catchment

Site	Designation	Qualifying interests
Mendip Grasslands (the component SSSI in North Somerset Rivers catchment is Uphill Cliff)	pSAC	<ul style="list-style-type: none"> Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) <i>Tilio-Acerion</i> forests of slopes, screes and ravines Caves European dry heaths Greater horseshoe bat Lesser horseshoe bat
North Somerset and Mendip Bats (the component SSSIs in North Somerset Rivers catchment are Banwell Caves, Banwell Ochre Caves, Brockley Hall Stables, Compton Martin Ochre Mine, King's Wood and Urchin Wood.	cSAC	<ul style="list-style-type: none"> Greater horseshoe bat Lesser horseshoe bat <p>Additional proposed interests:</p> <ul style="list-style-type: none"> <i>Tilio-Acerion</i> forests of slopes, screes and ravines Caves Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>)
Severn Estuary	SPA	Supporting wintering Bewick's Swan, over 20,000 wintering wildfowl and 5 species of migratory waterfowl (European white-fronted goose, shelduck, gadwall, dunlin, redshank).
Severn Estuary	RAMSAR	Important run of migratory fish between the sea and the sub-estuaries (including salmon, sea trout, sea lamprey, river lamprey, allis shad, twaite shad and eel), immense tidal range, supporting over 85,000 waterfowl, staging area for over 1500 whimbrel.
Severn Estuary	pSAC	Estuaries, intertidal mudflats and sandflats, atlantic salt meadows, submerged marine habitats, subtidal reefs, fish (allis shad, twaite shad, sea lamprey, river lamprey).

The Agency, as a 'Competent Authority', has extra responsibilities to safeguard these sites. Any applications for new authorisations (consents to discharge, abstraction licences, waste licences) and activities (land drainage or flood defence work), that may have a significant effect on a Natura 2000 site, will be subject to an appropriate assessment of the likely impact on the conservation interests of the site. We are obliged to review all existing authorisations and activities that may be affecting the sites. These authorisations can be either inside or outside the site, as those outside the boundary may still have the potential to impact on the site's qualifying interests.

Figure 6 summarises the identification and authorisation process under the Regulations. Any activity that could impact on the Severn Estuary will also need to be considered under the Regulations. The appropriate assessment of the effect of a new or existing activity or authorisation on a Natura 2000 site must take place in the light of conservation objectives that will be supplied by English Nature by the end of March 2001. The authorisation or activity can only be allowed where the assessment has demonstrated that it will not adversely affect the integrity of the site.

Figure 6: Summary of the consents process under the European Community Habitats and Birds Directives



4.2. Flood Warning

Absolute flood protection is not possible and so effective warnings are essential, especially where a flood defence scheme cannot be justified. We issue warnings through the media, the Agency's Floodline telephone service, and directly to people in some areas by telephone, fax or pager, or by local flood wardens or sirens.

During 1998 much of England and Wales were seriously hit by floods, both at Easter and again in October. An independent report was commissioned to look at how we dealt with these floods; the result was the Bye Report, published on 1 October 1998. In response we published our own Easter Floods Action Plan. Findings from both these reports and consultation with the Government set new priorities to ensure the delivery of an improved Flood Warning Service:

A seamless and integrated service of flood forecasting, warning and response

One of the key developments resulting from the review of flood warning is the implementation of a new flood warning code system. The colour-based flood warning code system (yellow, amber, and red) has been replaced with a staged approach since September 2000. Under the new system there are four stages of warning:

- **All-clear:** No flood watches or warnings currently in force in the area; flood water levels receding; check all is safe to return; seek advice.
- **Flood watch:** Flooding is possible; be aware; be prepared; watch out.
- **Flood warning:** Flooding of homes, businesses and main roads is expected; act now.
- **Severe flood warning:** Severe flooding is expected; imminent danger to life and property; act now.

In September 2000 we mailed 843,000 homes and businesses in flood risk areas throughout England and Wales as part of Flood Action Week. **Floodline 0845 988 1188** was introduced in October 1999 and is an integral part of the new system. The service gives details 24 hours a day of flood warnings in force, and advisors can give callers advice to protect homes and property. Floodline received over 90,000 calls before October 2000, and over 500,000 calls during October and November alone following recent flood events. We aim whenever possible to give at least a two-hour warning, based on weather information and our own telemetry readings. The flood warning service is based on the principle that the better prepared people are, the better they will cope with the effects of flooding.

A further aspect of the Agency's Flood Warning Dissemination Project is the production of Major Incident Plans for urban areas protected by flood defences, in conjunction with local authorities and emergency services. The plans are funded by the Agency, but owned by the local authority.

4.3. Floodplain maps

There are some 19,000 properties at risk of flooding in the catchments of the Brue and North Somerset Rivers. Climate change threatens to increase the risk of flooding, and development in flood-prone areas may compound the problem. Since December floodplain maps have been added to the Agency's website. The indicative floodplain maps provide an overview of flood risk in England and Wales. Users can enter the name of a town or a postcode and see which areas of England and Wales are at potential risk of flooding from rivers or the sea.

It is important to note that the fact that a property lies within a floodplain does not mean that it will definitely experience flooding, nor does it denote any particular degree of risk; there are a significant number of factors that cannot be mapped at this level of detail. Further information is available from Floodline or direct from Agency Offices. The maps were launched as independent research for the Agency indicated that, despite growing awareness, over 50% of people who live in flood risk areas are still not aware that their property may be at risk from flooding.

The Agency has already provided copies of the indicative floodplain maps to all local authorities in England and Wales to help with emergency planning and development control decisions. The floodplain maps can be accessed by clicking on 'What's in your backyard?' on the Agency's website: www.environment-agency.gov.uk.

4.4. Catchment Abstraction Management Strategies (CAMS)

Nearly everyone who needs to abstract water from rivers, canals, reservoirs, lakes or from groundwater sources requires a licence from the Environment Agency. There are about 48,000 licensed abstractions in England and Wales. Since the present licensing system was introduced in 1965, demand for water has increased, environmental expectations have grown and commercial practices have changed. As a result, the Government reviewed the licensing system during 1997/1998, publishing its report *Taking Water Responsibly* in March 1999. This review has resulted in some important changes. Initially we are concentrating on the following areas, which do not require new primary legislation:

- Catchment Abstraction Management Strategies
- time-limiting of licences
- restoring sustainable abstraction by dealing with damaging abstractions
- review of licence administration procedures

Catchment Abstraction Management Strategies

This major initiative will provide the opportunity, at a local catchment level, for groups and individuals to contribute to the development of the strategy to be adopted for the catchment. Catchment Abstraction Management Strategies will provide information on:

- the availability of water in a catchment
- licensing practice in dealing with new applications
- changes needed to the abstraction regime in the catchment to achieve the sustainable long-term use of water resources
- a transparent basis for planning by abstractors, the Agency and all other interested parties

A national consultation exercise on our proposals for the production of Catchment Abstraction Management Strategies closed on 31 July 2000. Following the consultation a National Support Document was published in April 2001. Catchment Abstraction Management Strategies will be published one at a time on a six-year rolling cycle. In North Wessex we hope to publish our first strategy in 2003 which will cover the River Tone catchment. The Brue and Axe and North Somerset Rivers CAMS is provisionally targeted for publication in 2007.

4.5. Waste management

Waste Strategy

The Waste Strategy 2000 continues many of the principles of its predecessor 'Making Waste Work' (see the First Annual Review). The overarching principle is that decisions regarding waste management should be consistent with the Best Practicable Environmental Option (BPEO). This considers the protection and preservation of the environment in the long and short terms and is likely to be different for each waste stream in each location.

The Waste Strategy contains many statutory targets for local authorities as well as aspirational targets for industry and commerce, and identifies the roles of interested parties such as local authorities, the waste management industry and the Environment Agency. Discussion on the available waste management techniques and different waste streams is also included.

Strategic Waste Management Assessments

As a requirement of Waste Management Licence conditions we receive data from site operators relating to the amount of waste each site has managed in a set period, usually quarterly. This data is amalgamated to provide statistics on how much waste is being managed at licensed sites within a particular area, district or country. This data, combined with data from the National Waste Production Survey, can then be used for planning purposes. In particular it can be used in the production of the Agency's own Strategic Waste Management Assessments (SWMAs).

These advise regional planning functions such as Regional Technical Advisory Bodies and local authorities about the provision of land and resources for waste management, particularly regarding Waste Local Plans, but also other plans which include waste as a factor. The Agency's South West Region Strategic Waste Management Assessment was published at the end of 2000.

Waste Local Plans are prepared by the local authority, in this instance North Somerset Council, and provide details as to how and where the authority will allow development of waste management facilities. North Somerset's Waste Local Plan was the subject of a Public Local Inquiry in December 2000 and, depending on any recommendations in the Inspector's Report of that Inquiry, will be formally adopted as a policy document.

Producer Responsibility Obligations

The Producer Responsibility Obligations (Packaging Waste) Regulations place an obligation to recycle and recover certain amounts of packaging on those companies that supply more than 50 tonnes of packaging per annum and also have an annual turnover greater than £2 million. Proof of recycling and recovery is required by the Agency and can be provided by an Accredited Reprocessor (a company that voluntarily registered with the Agency and has had the process of packaging recycling and recovery checked by the Agency). Producer Responsibility will be extended in the next few years to include end of life vehicles, waste electrical and electronic equipment and batteries. The Waste Strategy includes the possibility of including junk mail.

Landfill Tax

The landfill tax, introduced on 1st October 1996, is payable on every tonne of waste taken to landfill. It is designed to make other waste management techniques more practicable economically with the aim of reducing the amount of waste going to landfill. The tax currently stands at £11/tonne for non-inert waste, going up by £1/tonne to 2003 and £2/tonne for inert waste, and is enforced and collected by Her Majesty's Customs and Excise. Site operators can enrol on environmental bodies, enabling up to 20% of the tax to be reclaimed for use on specific environmental projects.

Landfill Directive

Changes are likely to be required to operating landfills over the next few years in order to comply with the EU Landfill Directive, which must be transposed into UK legislation by 16 July 2001. All new sites must comply with the Directive from this date, whereas existing landfills will have a transitional period within which to comply. The key changes include:

- reduction in the amount of biodegradable waste going to landfill
- classification of sites as hazardous, non-hazardous and inert
- treating waste prior to landfill
- ban on the disposal of certain wastes to landfill, e.g. explosive or corrosive wastes
- whole tyres will be banned from landfill by 2003 and shredded tyres from 2006

The Environment Agency will be responsible for implementing and enforcing the new regulatory requirements for landfills in England and Wales.

Waste Minimisation Partnerships

Provision of waste minimisation advice and guidance to local groups is ongoing. We encourage industry and commerce to minimise waste and the use of natural resources through our support of the LO WEST Business Support Partnership. The other partners of LO WEST are North Somerset Council, Business Environment Association Bath & District, Business Link West and Bath & North East Somerset Council.

4.6. Contaminated Land Regulations

Part IIA of the Environmental Protection Act 1990 came into force in England on 1 April 2000, and introduces a new regulatory regime for the identification and remediation of contaminated land. The new regime requires local authorities to identify contaminated land within their areas and provides a statutory definition of contaminated land:

'any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that significant harm is being caused or there is a significant possibility of such harm being caused; or pollution of controlled waters is being, or is likely to be, caused'

Certain contaminated land sites may become designated as 'special sites' and these will become the responsibility of the Agency. Contaminated land is designated as a special site if the site falls within one of the descriptions defined in the Contaminated Land (England) Regulations 2000. These descriptions are summarised within Figure 7.

Once sites have been designated as Special Sites we will liaise with the landowners and other appropriate persons to ensure a timely programme of remediation where action is required. No Special Sites have yet been identified in this catchment. Details of Special Sites will be kept on a Public Register, maintained by the Agency. The Agency also has a role to provide relevant information and advice to local authorities, particularly regarding pollution of controlled waters.

Figure 7: Conditions for designation of contaminated land as Special Sites

A) Any of the following activities have been carried out at any time:

- disposal of waste acid tars in a retention basin
- purification of crude petroleum or oil
- manufacture or processing of explosives
- the manufacture, production or disposal of chemical weapons
- the manufacture, production or disposal of biological agents or weapons
- an authorised prescribed process

B) The land is used for any of the following:

- naval, military or air force purposes
- an atomic weapons establishment
- within a nuclear licensed site
- activities which are subject to Section 30 of the Armed Forces Act 1996

C) Land which is affecting any controlled waters that:

- are used as a drinking water supply, and are likely to require treatment in order to be fit for human consumption, or
- are not likely to meet the requirements for water quality specified in regulations made under the Water Resources Act 1991, or
- are contained within one or more defined aquifers and where pollution relates to one or more of the defined substances

D) The land appears to be contaminated as a result of the escape of substances from sites that meet any of the descriptions for A and B.

4.7. Integrated Pollution Prevention and Control (IPPC)

One of the Agency's key responsibilities is to prevent pollutants from major industrial processes being released into the environment. Where releases do occur, we try to make sure they are minimised and made harmless. Regulations identify industrial processes that use or produce potentially harmful substances in significant amounts, known as prescribed processes and substances. Broadly, these are the industrial processes with the greatest potential to cause pollution. Local authorities regulate smaller, less complex industrial processes.

The United Kingdom was one of the first countries in Europe to introduce an integrated regulatory system, and many individual processes have been authorised under Integrated Pollution Control (IPC). A similar approach will be introduced throughout the European Union under the new *Integrated Pollution Prevention and Control Directive* (IPPC). Integrated Pollution Prevention and Control came into force in the UK on 1 August 2000. This will apply to a broad range of industrial and commercial sectors, most subject to existing but separate authorisation schemes for their emissions to water, air and land. Sectors such as those involved in food and drink production and intensive agriculture will be regulated by permits for the first time.

We previously regulated discharges to water by sectors not covered by Integrated Pollution Control by issuing consents, which restrict the amount and type of pollutants that can enter a watercourse. While existing sites will be phased into the new regime between now and 2007, any new sites under development will be subject to Integrated Pollution Prevention and Control with immediate effect.

The Integrated Pollution Prevention and Control Directive requires member states to prevent or, where that is not possible, to reduce pollution from a range of industrial and other installations, by means of an integrated permitting process based on the application of 'best available techniques'. The integrated approach takes a wide range of environmental impacts into account such as emissions of pollutants (to air, water and land), energy efficiency, consumption of new materials, noise and site restoration. The aim is to achieve a high level of protection for the environment as a whole. Permits must take into account local environmental conditions at the site concerned, its technical characteristics and its geographical location. Conditions must be included to address any transboundary pollution from an installation and also to ensure, where necessary, that any environmental quality standard laid down in European Community legislation is not breached.

4.8. Fisheries

In 1999 a review of policy and legislation applying or relevant to salmon and freshwater fisheries was carried out by an independent review group on behalf of Ministers. The group was asked to make recommendations. Naturally the Environment Agency, which itself gave evidence has awaited the output with great interest. The group made a total 195 recommendations and the Ministry of Agriculture, Fisheries and Food published the 'Salmon and Freshwater Fisheries Review' in 2000. This review then went out to public consultation. Many of the recommendations for change would need changes in legislation. The Government have now debated the review and published their response in January 2001. This review and any future changes as a result of it will be very relevant to the work of the Agency's Fisheries function. We continue to protect the local fisheries in the North Somerset area through enforcement of fisheries laws and the screening of consents and permissions within the planning and development control process.

A public consultation occurred in 2000 on the Agency's 'Draft National Eel Management Strategy' and on the 'Draft Eel Net Licensing System, Duties and Byelaws'. Confirmation of proposals should occur in 2001. The rivers and streams within this catchment are surveyed for their fish populations currently within a five-year rolling programme. The national monitoring programme is currently being reviewed and reformulated to match resources. The implications for fisheries monitoring within North Somerset are not yet clear.

4.9. The Agency's own environmental management

We have developed an Environmental Management System to monitor our own environmental performance. An Environmental Management System is a systematic way of managing the environmental impact of an organisation. A successful system will deliver a continual improvement in our environmental performance, and create potential for substantial cost savings. The Agency will support continuous environmental improvement by the establishment of demanding but achievable and measurable environmental performance targets, determined and reviewed annually. These targets cover aspects of energy and resource use, waste minimisation and recycling.

The First Annual Review included actions for internal environmental improvements in the North Wessex Area (covered by actions 3.1.1, 3.1.2, 4.1.2 and 5.1.5). These actions were based on our targets for 1998/1999 and have now been completed. Our targets for 2001/2002 are set out in Figure 8, and progress will be covered by a new action (3.1.6). The targets set are national targets to be achieved within a timescale of five years. Achievement of the targets will fulfil the Agency's commitments under the Greening Government Initiative and will also result in real business benefits.

Figure 8: Environmental Performance Targets 2001/2002

Aim: A greener business world

Target 1: Develop and externally certify the Environment Agency Management System to ISO9001/14001 by April 2002.

Aim: Limiting and adapting to climate change

Target 2: To reduce buildings energy consumption by 10% from a 1999/00 baseline by the end of March 2005:

- We will progress this through the achievement of site specific targets at 65% of sites by the end of March 2002.

Target 3: To purchase 6 million kWh of renewable generated electricity by the end of March 2005:

- We will progress towards this by purchasing an additional 1.2 million kWh from a baseline of 2000/01 by the end of March 2002.

Aim: Improve and protect inland and coastal waters

Target 4: To reduce buildings water consumption by 10% from a 1999/00 baseline by the end of March 2005:

- We will progress towards this through the achievement of site specific targets at 65% of sites by the end of March 2002.

Aim: Wiser, sustainable use of natural resources

Target 5: To reduce office waste by the end of March 2005 in the following areas:

- residual waste from offices by 20% (5% per annum) from a 1999/00 baseline
- reduce the purchase of paper by 10% (2.5% per annum) from a 1999/00 baseline

Aim: Cleaner air for everyone

Target 6: To reduce total vehicle emissions by 10% from a 1999/00 baseline by the end of March 2002, to include:

- 9% mileage reduction from a 1996/7 baseline focusing on office based staff and miles driven in private cars
- the purchase of an additional 40 alternatively fuelled badge vehicles

4.10. Road transport

Although the Agency has no formal remit in relation to road transport, many of the associated issues have a bearing on the Agency's ability to regulate and manage the environment effectively. The need to take a holistic, long-term view of this issue is at the heart of the principal aim of sustainable development.

Road transport has long been acknowledged as a major source of air pollution, nitrogen oxides and particulate matter being the main pollutants. Nitrogen oxides and volatile organic compounds from vehicles are also precursors of ozone which has a detrimental effect on health. Lead also has a wide range of toxic effects. Petrol engines accounted for almost 75% of carbon monoxide emissions in 1997. Petrol also contains the carcinogenic benzene and 1,3 butadiene, which are released to the atmosphere during combustion. In addition to air pollution, impacts can include:

- habitat loss and barriers to species movement
- diffuse water pollution from accidental spillages
- climate change
- increased flood risk
- cumulative effects on the environment through related land uses such as petrol stations and increased use of raw materials (including aggregates and petroleum)
- loss of landscape value and increased noise nuisance

A transport study is currently underway for the Banwell area. Following a period of consultation, available options were presented to the steering group in October 2000, considering traffic management, public transport, road building and land use issues. A further round of public consultation is now taking place. The study is being carried out by JMP Consultants. A transport study is also being carried out by Scott-Wilson for North Somerset Council in the north of the catchment.

The Agency as a statutory consultee to local planning authorities advises on issues within our remit when new roads are proposed. Since 1997 the Agency has also been involved in a number of initiatives concerned with transport at a national level, particularly through the National Centre for Risk Analysis and Options Appraisal. The Centre has been closely involved in developing a new approach to appraisal for road schemes, which was used to appraise the short-term programme for roads in 1997. This resulted in the Roads Review in 1998, a process which substantially reduced the number of road-building projects. Our North Wessex Area Office is also working locally on air quality through its membership of the steering group of the University of the West of England's Air Quality Management Centre, and has contributed to the cost of running the Centre.

4.11. Catchment Flood Management Plans

Ministry of Agriculture, Fisheries and Food (MAFF) guidelines will be published autumn 2001 for the production of Catchment Flood Management Plans. 100% MAFF funding will be available for these catchment-wide strategic reports to be completed by 2003. The reports will consider existing and future flood risk, and the impact of certain options for improvement of that risk. They will identify processes that require further study. We propose to complete the plan for the North Somerset LEAP catchment during 2002.

4.12. Water Framework Directive

The EC Water Framework Directive is intended to be transposed into UK law by 2003. It introduces a new approach to improving the status of all waters and will eventually repeal much of the existing EC water legislation. The main requirement is that all surface and ground waters achieve 'good' status by 2015. The Department of the Environment, Transport and the Regions (DETR) has proposed that the Environment Agency be the competent authority for the Directive. The main activities under the Directive will be carried out in river basin districts. Within these there will be a series of consultations before the first programme of measures are introduced in 2012 to ensure compliance with environmental objectives for each river basin by 2015.

4.13. Water Resources Strategy

The Environment Agency is the statutory body with a duty to secure the proper use of water resources in England and Wales. In accordance with this duty, we published a water resources strategy for the Agency's South West Region in March 2001. It is one of a suite of eight regional strategies, plus the overall national strategy for England and Wales. The strategies look some 25 years ahead. The strategy considers the needs for water, both for the environment and for society, and examines the uncertainties about future water demand and its availability.

The strategy is part of a framework of integrated water resources planning carried out by the Agency and water users. Water companies play an important part in this framework, each having a published plan for the next 25 years that is kept under annual review. Our strategy sets a structure within which these plans can be refined, allowing them to meet the wider objectives of society.

The strategy identifies demand management and water resource development options that are able to help ensure adequate supplies of water across all sectors and shows that we can manage water resources over the next 25 years in a way that will allow an improvement to present levels of environmental protection.

5. Appendices

5.1. River Quality Objectives

We manage water quality by setting targets called River Quality Objectives (RQO). They are intended to protect current water quality and future use, and we use them as a basis for setting consents for new discharges and planned future quality improvements. River Quality Objectives are assigned to all significantly sized rivers based on river flow.

River Quality Objectives are based on the River Ecosystem Classification Scheme that consists of five classes. It sets standards for dissolved oxygen (DO), biochemical oxygen demand (BOD), ammonia (NH₃), pH, dissolved copper and total zinc. Class RE5 has lower limits and does not in any way denote the worst water quality possible.

Figure 9: River Ecosystem classification

RQO	Class Description
RE1	Water of very good quality suitable for all fish species
RE2	Water of good quality suitable for all fish species
RE3	Water of fair quality suitable for high class coarse fish populations
RE4	Water of fair quality suitable for coarse fish populations
RE5	Water of poor quality, which is likely to limit coarse fish populations

Figure 10: River Quality Objective (RQO) compliance 1998-1999

River Name	Public Stretch Name	Stretch number	Long term RQO	Compliance 1998	Compliance 1999
Banwell	Banwell - M5	1	4	Marginal fail (DO)	Marginal fail (DO)
Banwell	M5 - Sea	2	4	Marginal fail (DO)	Marginal fail (DO)
Congresbury Yeo	Blagdon Lake - Perry Bridge	3	2	Compliant	Marginal fail (NH ₃)
Congresbury Yeo	Perry Bridge - Wrington	4	2	Compliant	Compliant
Congresbury Yeo	Wrington - Congresbury	5	2	Compliant	Compliant
Congresbury Yeo	Congresbury - M5	6	3	Compliant	Compliant
Congresbury Yeo	M5 - Icelton (estuary)	7	2	Compliant	Compliant
Kenn	Source - Sea	8	4	Compliant	Compliant
New Blind Yeo	Cut From Kenn - Clevedon	9	4	Compliant	Compliant
New Blind Yeo	Clevedon - Sea	10	4	Compliant	Compliant
Land Yeo	Source - Clevedon	11	2	Marginal fail (DO)	Compliant
Land Yeo	Clevedon - Sea	12	5	Compliant	Compliant
Portbury Ditch	Source - Middle Bridge	13	4	Significant fail (DO)	Marginal fail (DO)
Portbury Ditch	Middle Bridge - Sea	14	4	Marginal fail (DO)	Compliant

We have shown failures to meet River Quality Objectives as significant and marginal failures. Significant failures are those where we are 95% certain that the river stretch has failed to meet its River Quality Objective. Marginal failures are those where we are less certain (between 50% and 95%) that the stretch has failed to meet its River Quality Objective.

In addition to chemical quality, which is measured annually, we monitor biological quality every five years. The biological survey has been carried out during 2000, and was completed by March 2001. The results will be reported nationally by the middle of 2001.

5.2. Duties, powers and interests of the Environment Agency

Agency Duty	The Agency has powers to:	The Agency has an interest (but no powers) in:	Partnership
Water Resources The Agency has a duty to conserve, redistribute, augment and secure the proper use of water resources.	<ul style="list-style-type: none"> • Grant or vary water abstraction and impoundment licences on application with appropriate conditions imposed to safeguard the needs of the environment whilst allowing reasonable and justified use of available and sustainable water resources – with the aim of achieving an equitable balance between competing demands. • Revoke or vary existing licences to reinstate flows or levels to surface waters or groundwater which have become depleted as a result of abstraction. Compensation may be payable if such powers are used. • Secure the proper use of water resources through its role in water resources planning, and the assessment of reasonable need for abstractions and the promotion of more efficient use of water resources. • Monitor and enforce abstraction and impoundment licences. • Issue conservation notices to direct appropriate practices with regard to water resources issues associated with exempt dewatering activities. 	<ul style="list-style-type: none"> • 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. • Protecting the water environment from any adverse impact due to proposed major developments. 	<ul style="list-style-type: none"> • The Agency uses its position as a statutory consultee to the planning authorities to secure conditions and agreements that protect the water environment and that encourage water conservation measures. • The Agency also seeks to influence planning decisions for new development by ensuring that planning authorities allow for any lead time required for resource development. • 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. • 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.

Agency Duty	The Agency has powers to:	The Agency has an interest (but no powers) in:	Partnership
<p>Flood Defence 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"> • 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). • Produce flood risk maps for all main rivers under S105 of Water Resources Act 1991. • Undertake works to main rivers using permissive powers. • Issue flood warnings relating to main river to the public, local authorities and the police. • Consent mineral working within 16 m of main rivers. 	<ul style="list-style-type: none"> • 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. • Installation of surface water source control measures e.g. flood attenuation structures. • Supervising the maintenance of ordinary watercourses which is a local authority remit, but may impact on main rivers. • Installation of buffer zones which reduce flood risk and have significant environmental benefits. • Urban and rural land use and measures that can reduce flood risk or the need for watercourse maintenance. 	<ul style="list-style-type: none"> • 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. • 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. • The Agency works with the civil authorities to prepare flood warning dissemination plans and supports their endeavours to protect communities at risk.
<p>Water Quality 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"> • Issue discharge consents to control pollution loads in controlled waters. • Regulate discharges to controlled waters in respect of water quality through the issue and enforcement of discharge consents. • Issue 'works notices' and enforcement notices where action is required to reduce the risk of pollution. • Prosecute polluters and recover the costs associated with incidents. • Serve prohibition notices (with or without conditions) on highway authorities to require treatment and pollution measures for highway runoff. 	<ul style="list-style-type: none"> • The greater use of source control measures to reduce pollution by surface water runoff. • Prevention and education campaigns to reduce pollution incidents. • The provision of highway runoff control measures, which is a highway authority remit. 	<ul style="list-style-type: none"> • 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.

Agency Duty	The Agency has powers to:	The Agency has an interest (but no powers) in:	Partnership
<p>Air Quality The Agency has a duty to implement Part 1 of the Environmental Protection Act 1990.</p>	<ul style="list-style-type: none"> • Regulate 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. • Have regard to the government's National Air Quality Strategy when setting standards for the releases to air from industrial processes. 	<ul style="list-style-type: none"> • The vast number of smaller industrial processes which are controlled by local authorities. • Control over vehicular emissions and transport planning. 	<ul style="list-style-type: none"> • 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.
<p>Radioactive Substances The Agency has a duty under the Radioactive Substances Act 1993 to regulate the use of radioactive materials and the disposal of radioactive waste.</p>	<ul style="list-style-type: none"> • To issue certificates to users of radioactive materials and disposers of radioactive waste, with an overall objective of protecting the environment. 	<ul style="list-style-type: none"> • The health effects of radiation. 	<ul style="list-style-type: none"> • 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. • The Agency will work with the Nuclear Installations Inspectorate 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.

Agency Duty	The Agency has powers to:	The Agency has an interest (but no powers) in:	Partnership
<p>Waste Management 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.</p>	<ul style="list-style-type: none"> • Vary waste management licence conditions. • Suspend and revoke licences. • Investigate and prosecute illegal waste management operations. • License the carriers and brokers of waste. • Refuse licence applications in certain circumstances. • Regulate Producer Responsibility Regulations. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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.
<p>Contaminated Land 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.</p>	<ul style="list-style-type: none"> • Regulate the remediation of contaminated land designated as special sites. • Prevent future land contamination by means of its IPC, Water Quality and other statutory powers. • Report on the state of contaminated land. 	<ul style="list-style-type: none"> • Securing with others, including local authorities, landowners and developers, the safe remediation of contaminated land. 	<ul style="list-style-type: none"> • The Agency supports land remediation and will promote this with developers and local authorities and other stakeholders.
<p>Conservation 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.</p>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • The conservation impacts of new development. These are controlled by local planning authorities. • 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. • Implementation of the UK Biodiversity Plan. 	<ul style="list-style-type: none"> • 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.

Agency Duty

The Agency has powers to:

The Agency has an interest (but no powers) in:

Partnership

Landscape

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.

- 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.

- The landscape impact of new development, particularly within river corridors. This is controlled by local planning authorities.

- 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.

Archaeology

The Agency has a duty to consider the impact of its water management functions on archaeological and heritage interests.

- The Agency must promote its archaeological objectives through the exercise of its water management and pollution control powers and duties.

- Direct protection or management of sites of archaeological or heritage interest. This is carried out by local planning authorities, County Archaeologists and English Heritage.

- The Agency will liaise with those organizations which have direct control over archaeological and heritage issues to assist in the conservation and enhancement of these interests.

Fisheries

The Agency has a duty to maintain, improve and develop salmon, trout, freshwater and eel fisheries.

- Regulate fisheries by a system of licensing.
- Make and enforce fisheries byelaws to prevent illegal fishing.
- Promote the free passage of fish and consent fish passes.
- Monitor fisheries and enforce measures to prevent fish entrapment in abstractions.
- Promote its fisheries duty by means of land drainage consents, water abstraction applications and discharge applications.

- The determination of planning applications which could affect fisheries.

- Many development schemes have significant implications for fisheries. The Agency will work with anglers, riparian owners, developers and local authorities to protect fisheries.

Recreation

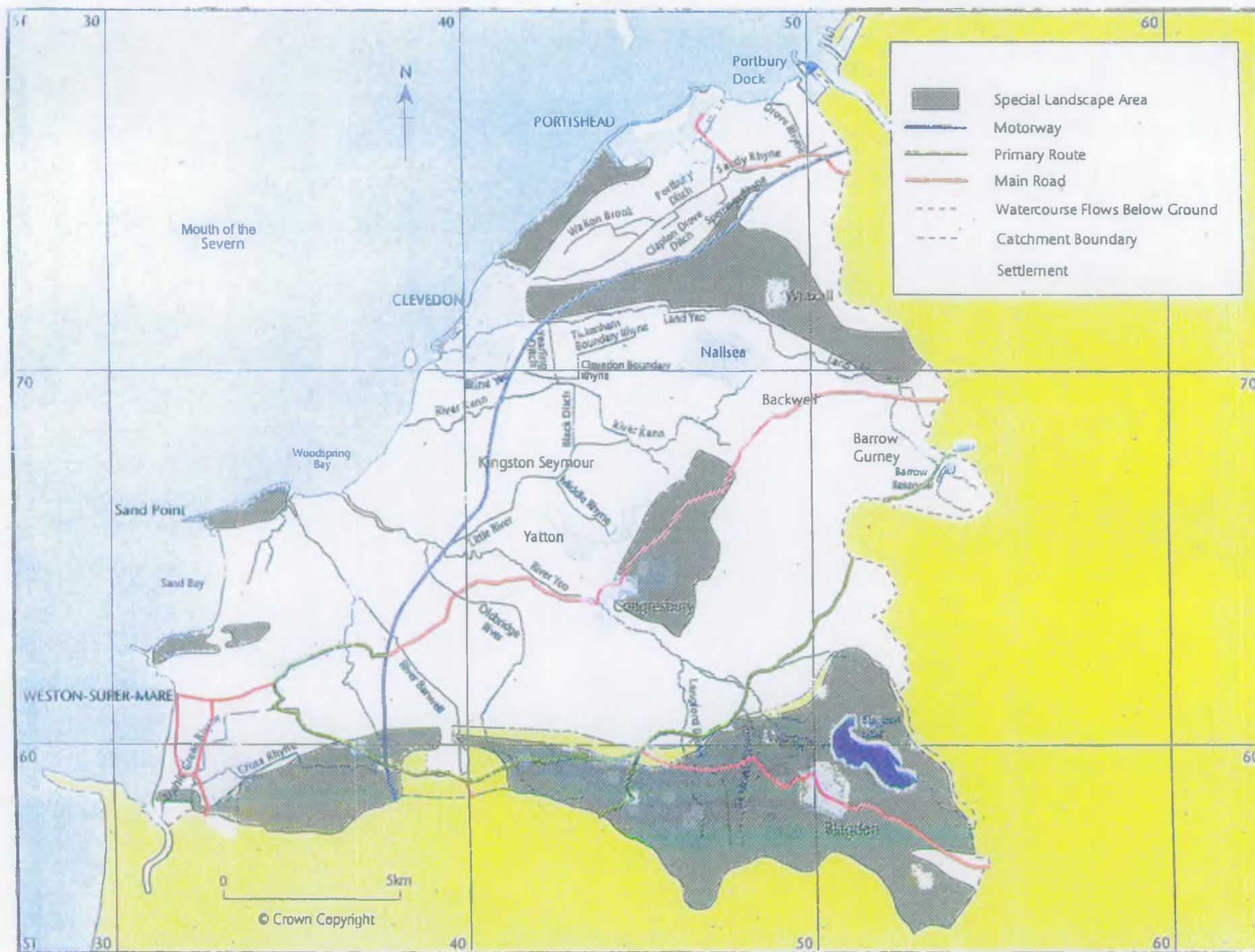
The Agency has a duty to promote rivers and water space for recreational use.

- The Agency contributes towards its recreation duty through the exercise of its statutory powers and duties in water management.

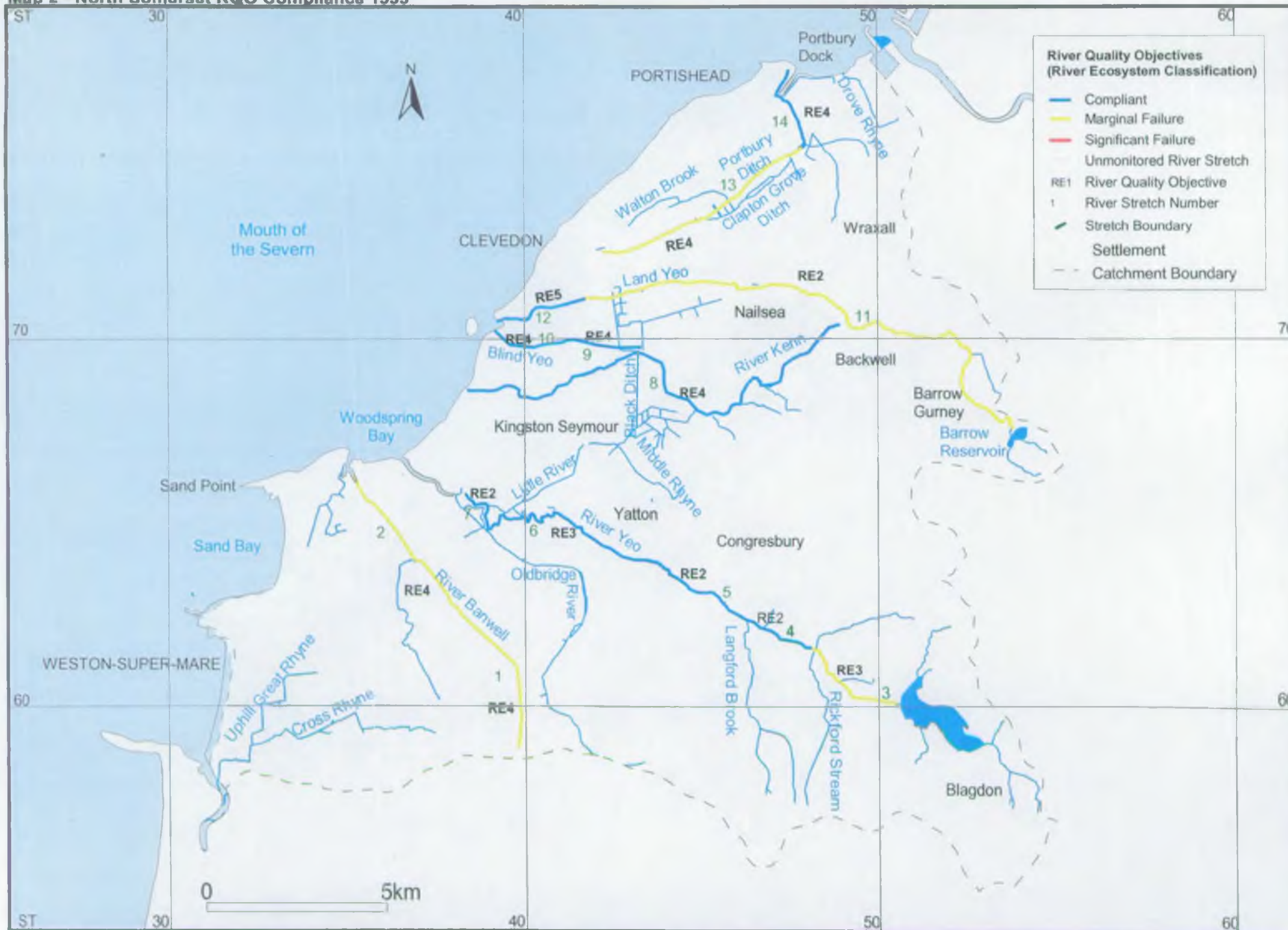
- Promotion of water sports. The Sports Council and other sport bodies carry this out.

- The Agency will work with the Countryside Commission, the Sports Council, British Waterways and other recreational and amenity organizations to optimise recreational use of the water environment.

North Somerset Rivers Catchment



Map 2 - North Somerset RQO Compliance 1999



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