

EA - MIDLANDS LEAPS BOX 4

# local environment agency plan

## MIDDLE SEVERN CONSULTATION REPORT SUMMARY APRIL 1997



ENVIRONMENT  
AGENCY

# Key details

## General

Area	2,634 km <sup>2</sup>
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## Administrative Details

### County Councils & Unitary Authorities % of Area

Shropshire CC	77%
Staffordshire CC	7%
Hereford & Worcester CC	16%
Wrexham County Borough	< 1%
Powys County - Montgomeryshire	< 1%

### Population (estimated from 1991 census)

YEAR	POPULATION
1991	506,324
2001 (predicted)	552,834

## Wildlife and Conservation

Sites of special scientific interest	158
Water related special wildlife sites	628
Special areas of conservation	2
World heritage site:	Ironbridge Gorge
Areas of outstanding natural beauty:	Shropshire Hills
Length of watercourse designated under EC directive for fresh water fisheries (78/659 EEC)	
Salmonid	98.4 km
Cyprinid – rivers	126.4 km
Cyprinid – canals	49.0 km

## Water Resources and Flood Defence

Average annual rainfall	696 mm
Length of main river in catchment	484 km
Number of operational sluices/pumping stations	3
Number of licensed abstraction (Surface and groundwater)	1,756

## Water Companies and Internal Drainage Boards

Severn Trent Water Ltd and South Staffordshire Water Company Ltd

Internal Drainage Boards: Strine IDB and Rea IDB

## Pollution Prevention and Control

### Waste Regulation

	No.
Landfill Sites (Inert)	29
Landfill Sites (biodegradable)	14
Waste Treatment Plants	4
Metal Recycling Stations	18
Household Waste Reclamation Sites	10
Incinerators	1
Former Landfill Sites	55
Transfer Stations	28

Number of Integrated Pollution Control authorisations 12

Total number of radioactive substances authorisation 4

Total number of radioactive substances registrations 42

## Water Quality

Length of watercourse (km) in each component of General Quality Assessment

GQA Grade (1995)	Chemistry	Biology
A GOOD	7.5	105.0
B	327.4	258.1
C FAIR	239.3	160.7
D	34.8	68.4
E POOR	29.2	14.4
F BAD		1.5

Consented discharges to water: 760 including:

364 sewage discharges and storm overflows,  
264 private sewage treatment plants and  
132 industrial

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## We need your views

Local Environment Agency Plans (LEAPs) rely on the opinions of individuals and groups who have an interest in the protection and enhancement of the local environment. The full Consultation Report (available from the Environment Agency and local libraries) to which this document is a summary is the first such plan to be produced for the Middle Severn area. If you have any comments about the local planning process or issues raised then we would like to hear from you.

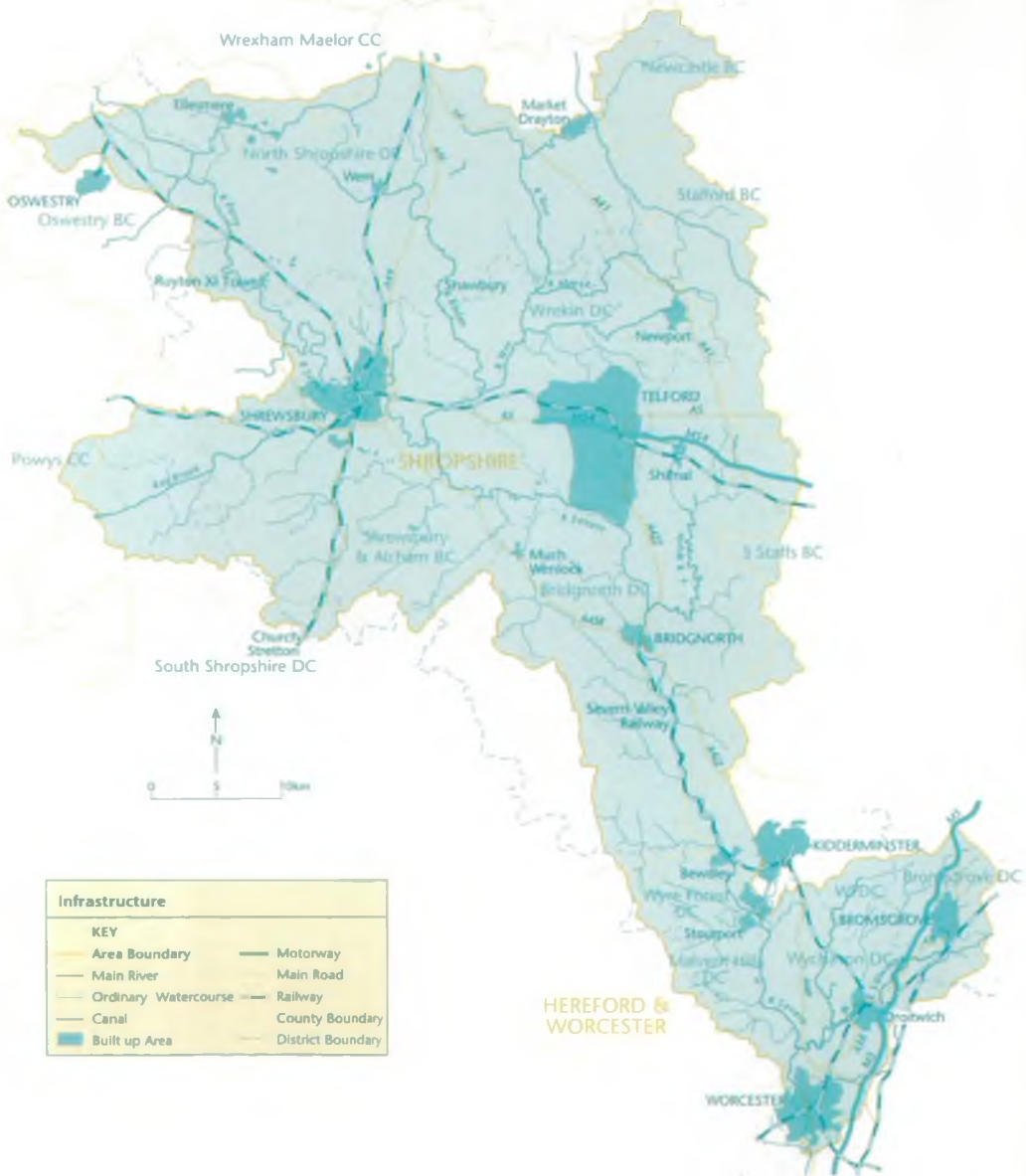
**Comments are required  
by 25 July 1997.**

**Please write to:**  
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Environment Planner  
Environment Agency  
Hafren House  
Welshpool Road  
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Fax: (01743) 272138

Further copies of this summary report and the full report are available at the above address.

*All comments received will be treated as public information unless you explicitly stated otherwise in your response.*

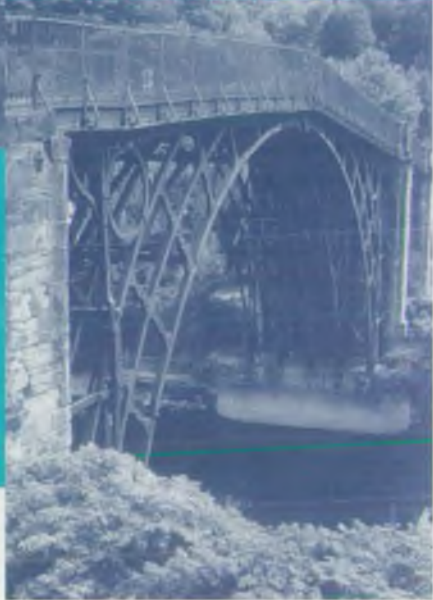
# Middle Severn Area



# Vision

The Environment Agency's Vision for the Middle Severn is:

To protect and enhance the natural resources and beauty of our local area for all to enjoy.



To achieve this vision we will:

- Promote and implement sustainable development.
- Educate and raise awareness of the environment and environmental issues.
- Protect and improve the landscape and conservation value of our environment.
- Manage our water resources in an environmentally sustainable way balancing abstraction with the needs of the water environment and its legitimate users.
- Protect and improve, where necessary, the quality of water in rivers and canals.

Top left: River Sever. Top right: Otters.  
Bottom left: Common Spotted Orchids.  
Above: Ironbridge, Telford.

# Introduction

The Environment Agency was formed on the 1st April 1996 bringing together the expertise of the National Rivers Authority (NRA), Her Majesty's Inspectorate of Pollution (HMIP), Waste Regulation Authorities (WRA's) and a number of smaller units from the Department of the Environment. This merger provides a more

comprehensive approach to the protection and management of our environment.

The Agency's statutory roles include pollution prevention and control, water resource management, flood defence, wildlife conservation, recreation and navigation.

## Protection through partnership

We aim to work in partnership with Local Authorities, industry, environment groups and many other agencies and individuals who share the interests of

the area. This will enable us to protect and enhance the environment while working towards the worldwide goal of sustainable development.

## Local environment agency plans

Local Environment Agency Plans (LEAPs) are non statutory action plans which will contribute to the principle of sustainable development. They will provide a focus for those concerned with the future of the local area. The Middle Severn LEAP will establish a common vision for the area and provide a framework for protecting and improving our local environment. It will raise local environmental issues and through partnership will direct resources where they are most needed. We aim to use the local planning process to promote input from a number of sources and adopt a more

balanced and integrated approach to environmental management.

LEAPs will also play a key role in:

- Developing liaison and partnership with key groups.
- Educating the public on local environmental issues.
- Prioritising and establishing an action plan for managing and improving the local area over the next five years.
- Promoting openness and accountability.

# The consultation process

The Consultation Report is the first output from the LEAP process for the Middle Severn area and is not the final plan. Before a finalised plan is produced the Environment Agency enters a three month consultation period which enables all interested parties to liaise and reach a consensus about the management of the area

and develop a shared vision. The publication of this report marks the start of this consultation period.

The Action Plan will be published in November 1997.

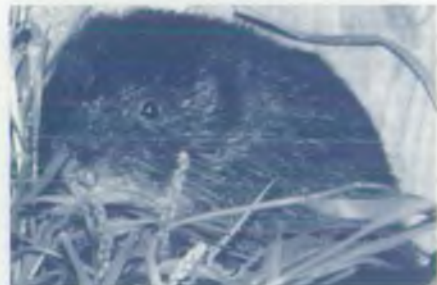
The diagram below shows the LEAP process.

## The Middle Severn – The LEAP Process



## Biodiversity

Nationally our wildlife is under threat. The Agency has a responsibility towards the implementation of the UK Biodiversity Action Plan and will be developing targets for species and habitats of conservation concern. Examples of target species in this area include the otter and water vole.



Water vole

# The local environment

## Overview

The Middle Severn area lies mainly within the counties of Shropshire and Hereford & Worcester and covers an area of 2,634 square kilometres with a population of 500,000. The landscape is one of contrasts with two distinct domains; the flat Shropshire plain in the north and the wooded Severn valley with its fast flowing brooks to the south. At the heart of the area is Ironbridge Gorge which is designated a World Heritage site and is recognised as the birthplace of the industrial revolution.

The area is one of outstanding natural beauty and unspoilt countryside which provides a constant variety for local

residents and tourists alike. A major feature of the area is the middle reaches of the River Severn which provide good quality water and supports a diversity of wildlife and habitat.

Over the years, however, increasing industrial, agricultural and domestic demands have impacted on the area. This has resulted in a loss of wildlife and habitat, threats to our water resources and low flow in rivers. In addition urban development has had an effect on land use in the area. These development pressures impact on our natural resources, transport routes, flood defence and on the local residents and wildlife.

The plan area exhibits a high landscape quality and varied geology which is not found anywhere else in Britain. Eleven of the thirteen recognised periods of geological time, ranging from about 700 million years old to those formed in the last ice age, only a few thousand years ago are present. As a result the scenery is dramatic and varied. This includes the flat north Shropshire plain, the prominent features of the Wrekin, the craggy Stiperstones, the Wenlock Edge and the rolling hills of Bridgnorth and Cleve.

The last glacial advance was responsible for many minor topographic features of

high conservation interest such as the classic 'kettle holes' of the Meres and peaty Mosses such as Wem Moss and Whixall Moss. Larger meltwater lakes formed between Shrewsbury and Telford, eventually these spilled at a low point near Ironbridge redirecting the river's flow southwards and cutting the present day gorge.

Land use in the area is dominated by agriculture which is supported by the variety of rich soils and favourable climate. The region is primarily low lying with little above 224 metres. 46.6% of the area is arable and 30% is grassland. Dairy farms represent the

## Land



single largest section of the industry with large increases in poultry farming seen in recent years. Only 5.3% of the area is urban. Centres of population and industry give rise to waste which has to be managed. Most of the waste

produced is disposed of in the area's 43 landfill sites. There is some import and export of waste from the area and at present there is sufficient landfill voidage to take the area's waste.

## Air

The predominantly rural nature of the area with its limited heavy industry is reflected in good air quality. Any emissions from heavy industrial processes are regulated to minimise their impact upon the environment.

The Agency contributes to the management of air pollution through the Integrated Pollution Control (IPC) system. We have no regulatory control over air quality, the responsibility of which lies with local authorities.



Brown Moss, Whitchurch

## Water

The main river in the area is the River Severn which is fed by six smaller rivers, the Perry, Tern, Rea Brook, Worfe and Salwarpe and the two large tributaries of the Tern – the Meese and the Roden. Water is abstracted from surface and underground sources such as the sandstone aquifers which underlie 40% of the area. Water is used for irrigation, public and private water supply, dilution of effluent and industrial purposes such as Ironbridge

power station. Many parts of the area are now closed to further abstractions or require compensation discharges to be made to nearby watercourses to protect the environment and the rights of existing abstractors.

The River Severn is regulated in order to meet the water resource demands of major abstractors on the river, while maintaining an acceptable flow for the purpose of fisheries, conservation,

## Water (Continued)

recreation and effluent dilution. The principle storage components providing this regulation are Llyn Clywedog and Lake Vyrnwy. Since 1984 the Shropshire Groundwater Scheme has been developed to supplement releases from Clywedog during periods of drought. The scheme abstracts water from the large quantities stored naturally underground in the Permo-Triassic sandstone formations underlying much of north Shropshire and discharging it to the nearby watercourses; the Perry, Tern, Roden and Severn.

Throughout the plan area the River Severn is a good quality watercourse, suitable for drinking water supply. The rivers in the area are EC designated

fisheries, supporting very good salmonid and cyprinid stocks. Natural groundwater is also of a very high standard, suitable for drinking without the treatment that surface waters require although nitrate levels are rising due to the intensity of agricultural practices in some areas.

To protect areas and populations at risk from flooding the Agency operates a flood warning system, this involves the 24 hour monitoring of rainfall and river levels. When there is a risk that flooding could occur, flood warnings will be issued for the area affected. Through the plan area the River Severn is split into five flood warning sections.

## Wildlife

The Middle Severn area is diverse, containing many different types of habitat which in turn support an abundant and varied flora and fauna. Fauna associated with aquatic habitats include otters and mink, kingfishers, dippers, sand martins and grey wagtails. Of the native British species of freshwater fish nearly all are found in the area including the rare twaite and allis shads. Salmon pass through the area on their migration to spawning areas further upstream and wild brown trout are present in a number of the tributary streams. The dominant fish in the area are barbel, chub, dace and roach. Rare invertebrates such as the Desmoulin's whorl snail, club tailed dragonfly and the

raft spider are also present in the area. Scarce flora include the floating water plantain and ribbon-leaved water plantain. Threats to wildlife arise through land drainage, agricultural intensification and urban development which has led to a subsequent loss of habitat.



Club Tailed Dragonfly

# Heritage

The region is dominated by agricultural landscapes with a number of large estates, historic parks and gardens such as Aqualate, Attingham and Dudmaston. The River Severn has long been a focal point of settlement and was once an important navigation route. The most striking evidence of this is seen at Ironbridge

Gorge, now a world heritage site.

Wetland areas such as the Strine levels are of archaeological interest as they retain environmental deposits and waterlogged objects are usually well preserved. Along the River Severn are the remains of historic fish weirs and eel traps.



Pleasure boat at Worcester

# Recreation

The natural beauty and tranquillity of the area combined with its proximity to the large West Midlands conurbation, means it is a popular tourist area attracting large numbers of walkers, watersports enthusiasts, bird watchers and holiday makers. The Severn Way footpath promoted by the Agency, the Jack Mytton and Silkin ways have proved popular walking routes while the rivers

renowned for their fisheries attract large numbers of anglers. Throughout the River Severn rowing and canoeing are widely enjoyed, and boating is a common pastime particularly in the south of the area.

Care is required to balance the pressures associated with this high level of recreational use and the need to preserve the quality of the environment on which this depends.



# Issues and options

This section of the plan details specific environmental issues in the area.

The issues have been identified by:

- Using the local knowledge of Environment Agency staff.
- Informal consultation with a range of organisations and interested groups.
- Comparing the current state of the area with national and regional targets.

The options presented are the initial views of the Upper Severn Area,

Midlands Region of the Environment Agency and do not constitute policy statements. They are intended to facilitate improvements to the local environment for the benefit of all users. Their implementation will require the co-operation and commitment of many organisations and individuals.

The issues identified are not in priority order but are presented in associated issue groups under four main categories. Some issues are site specific whilst others can affect many parts of the area.

## 1. Land use and development impacts on the environment Issues 1 – 6

The interaction between land use and development and its impact on the environment.

ISSUE NO: 1	Agricultural pollution and the land spreading of controlled waste		
Options/Actions	Responsibility	Benefits	Constraints
Inspect land spreading activities as a priority. Provide advice to industry, contractors and farmers on best practice	Env Agency Industrialists Contractors STW Ltd Farmers	Better monitoring of processes. Reduced pollution risk	Manpower resources
Monitor and report water quality effects of measures taken in NSAs and NVZs in the area	Env Agency MAFF Farmers	Possible reduction in groundwater nitrates	Restrictions on farmers



Umbilical spreading

<b>ISSUE NO: 2</b>		<b>The disposal of sewage in rural areas</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>	
Establish the impact of inadequate rural sewerage facilities within the area	Env Agency Local Authority STW Ltd	Improvements in local environments	Cost of improvement schemes. Manpower resources. Lack of information on problem areas	
Seek improvements to village drainage systems in Vennington and Lyneal	STW Ltd Env Agency	Local environmental improvements	Cost – may require AMP3 investment	
Press for sewerage improvements at Hartlebury	Env Agency STW Local Authority	Environmental improvements	Cost – may require AMP3 investment	

<b>ISSUE NO: 3</b>		<b>The impact of contaminated sites</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>	
Investigate the potential for pollution from Betton Abbots landfill site	Shropshire Waste Management/ Env Agency	Identification of any sources of pollution	Cost Technical limitation	
Investigate the risk of pollution from Overly Hill, Telford	Agropharm/ Env Agency	Identify any remedial actions to alleviate pollution of groundwater		
Continue groundwater remediation, at the Bridgnorth Site, to Agency satisfaction	Owners Env Agency	Hydrocarbon pollution is removed from the aquifer		
Investigate the source and impact of pollution at the Telford site	Owners Env Agency	Identification of any remedial actions to alleviate the ground-water pollution		

ISSUE NO: 4	Monitoring of Ironbridge Power Station air emissions		
Options/Actions	Responsibility	Benefits	Constraints
Undertake dispersion modelling to estimate concentration of pollutants in air	Eastern Merchants Generation Ltd/ Env Agency	Increased knowledge of impact of power station on air quality	Need co-operation of relevant local authorities
Measure the concentration of pollutants in air local to station	As above	Identification of any problems with air quality local to the station	As above
Identify the main areas where emissions have greatest impact and measure the concentration of pollutants	As above	Information on where the station is having greatest impact and measure this impact	As above



Ironbridge Power Station

# Questionnaire

## Your views count

### The aims of this booklet are:

- To share our vision and proposals for the Middle Severn area.
- To ask you for your views and comments.

This is your opportunity to tell us what you think. Please:

1. Answer the quick questionnaire on the next three pages.

2. Write any extra comments on the back of this questionnaire.

3. Pull the questionnaire out of the booklet.

4. Send it to us in the **FREEPOST** envelope provided, even if you have not answered all the questions.

This can be posted or placed in the comments box provided with the display boards.

### 1 How did you first find out about this Local Environment Agency Plan?

Please tick appropriate box

Letter from the Agency

Agency's display

Agency poster

TV

Radio

Newspapers

Other, please specify

.....

### 2 Where did you get this booklet?

.....

### 3 In which town or area do you live?

.....

**4** Our vision for our area is to protect and enhance the natural resources and beauty of our local area, for all to enjoy.

Do you agree with this?

Yes

No

If you disagree, please tell us your vision for the area.

.....

.....

.....

**5** Please tick the three objectives that you feel are the most important.

- Promote and implement sustainable development.
- Educate and raise awareness of the environment and environmental issues.
- Protect and improve the landscape and conservation value of our environment including wetlands, rare and threatened species, fisheries and biodiversity, where the opportunity exists.
- Manage our water resources in an environmentally sustainable way, balancing abstraction with the needs of the water environment and it's legitimate users.
- Protect and improve the water quality.
- Reduce the environmental impact of waste.
- Protect people and the developed environment from flooding by providing effective defenses and warnings and protecting the natural floodplain.

**6** Are there other key objectives you would like to see included?

.....

.....

**7** Are there any errors or omissions in this booklet?

Yes

No

If yes, please give details.

.....

.....

.....



We have identified the issues on pages 12 to 24.

Please tick the five issues that are the most important to you:

**Land use and development impacts on the environment** Issues 1 – 6

- Issue 1: Agricultural pollution and the land spreading of controlled waste
- Issue 2: The disposal of sewage in rural areas
- Issue 3: The impact of contaminated sites
- Issue 4: Monitoring of Ironbridge Power Station air emissions
- Issue 5: The impact of urban pollution and development
- Issue 6: Caravan site development in the floodplain

**Losses affecting our environment** Issues 7 – 10

- Issue 7: Decline in eel fisheries
- Issue 8: Degradation of wetland and riverine habitats
- Issue 9: Failure to comply with water quality objectives and EC standards
- Issue 10: Impacts of water abstraction

**Protection and improvement of our environment** Issues 11 – 18

- Issue 11: Protection of existing high quality riverine and other wetland habitats
- Issue 12: Protection of biodiversity
- Issue 13: Protection of existing fisheries
- Issue 14: Protection of high quality water resources
- Issue 15: Water temperature impact of Shropshire Groundwater Scheme on the aquatic habitat
- Issue 16: Threats to the Farley Brook, Much Wenlock
- Issue 17: Stability in the Ironbridge Gorge area
- Issue 18: Flood alleviation schemes

**Opportunities for sustainable development** Issues 19 – 22

- Issue 19: Opportunities for amenity, recreation and navigation
- Issue 20: The management of industrial and commercial wastes
- Issue 21: River Severn control rules
- Issue 22: Floodplain management



ISSUE NO: 5	The impact of urban pollution and development		
Options/Actions	Responsibility	Benefits	Constraints
Ensure that unsatisfactory combined sewer overflows are included in future improvement programmes	STW Ltd Env Agency	Improvement in water quality and aesthetics	Competition with other AMP3 priorities
Investigate the cause and effects of the discoloured discharge from Rushmoor STW	STW Ltd Env Agency	Assess any impact. Prevent problem from occurring	Assessment of cause may prove difficult
Target inspections of industrial units draining to the Battlefield Brook, Shrewsbury	Env Agency STW Ltd Industrialists	Improve quality of the brook. Reduce pollution incidents	Manpower resource Costs of improvements
Maintain ordinary watercourses to an acceptable standard e.g. Ketley and Battlefield Brooks	Local Authority	Visual amenity improved, risk of blockages and flooding reduced	Cost of maintenance
Raise public awareness of urban debris and litter	Local Authorities Keep Tidy Britain group	Less urban debris produced. Improvement in water quality and aesthetics	
Monitor improvements to drainage and investigate remaining sources of pollution from industrial units on the Honeyman's Brook, Droitwich	Env Agency STW Ltd Industrialists	Direct any further work required	

ISSUE NO: 6	Caravan site development in the floodplain		
Options/Actions	Responsibility	Benefits	Constraints
Press for policies to be included in Local Plans to protect floodplain from caravan site development	Env Agency Local Planning Authorities	New caravan sites do not flood, existing problems not aggravated  Minimises risk to people and property  Alleviation of existing flooding	Limitation of developable land

## 2. Losses affecting our environment Issues 7 – 10

These issues consider the decline in species and habitat quality that has occurred within the area.

ISSUE NO: 7	Decline in eel fisheries		
Options/Actions	Responsibility	Benefits	Constraints
Construct elver passes on navigation weirs along the River Severn	Env Agency	Improved access of eels to feeding areas upstream, increased eel production in the catchment	Weir owner permissions

ISSUE NO: 8	Degradation of wetland and riverine habitats		
Options/Actions	Responsibility	Benefits	Constraints
Identify opportunities and implement Severn Valley Wetland strategy including Venus Pool and Chelmarsh	Env Agency Local Authorities English Nature Wildlife Trusts	Improvements to wetland habitats and associated biodiversity	Landowner permissions
Develop and implement management strategy for Shropshire Meres and Mosses (eg Wem Moss, Brown Moss)	English Nature Landowners Env Agency	Safeguard and improve nationally important wildlife resource	Landowner co-operation
Carry out habitat rehabilitation work on degraded rivers, including the River Perry and River Tern	Env Agency	Improved instream and riparian habitats, increased fish stocks and biodiversity	Limitations on river management for land drainage purposes
Create 'Buffer Strips' on degraded rivers by fencing in conjunction with above works, and encourage their creation along watercourses where arable farming takes place	Env Agency MAFF	Reduced sedimentation and nutrient enrichment of water courses. Development of wildlife corridor	Agricultural subsidies Landowner permissions



River bank degradation

<b>ISSUE NO: 9.1</b>	<b>Failure to comply with water quality objectives and EC standards Failures requiring investigation by the Agency</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>
River Severn, Cressage and Bever: Assess reason for failure to meet quality target	Env Agency	Achievement of target	Difficulty in assessing influence of algae
River Perry, Gobowen: Target farm inspections	Env Agency Farmers	Improve quality of river	Manpower resources
Stoke Brook, Stoke-on-Tern: Monitor to ensure anticipated improvements in quality occur	Env Agency	Achievement of RE target	
River Worfe, Stableford: Investigate quality target failure	Env Agency	Improve quality of river	Manpower resources
Barbourne Brook, Worcester:	Env Agency/Farmers	Improve water quality	Manpower resources
i) Assess need for farm inspections upstream of Blackpole ii) Continue leachate extraction from landfill iii) Continue water quality monitoring	Worcester City Council Env Agency	Improve water quality	Engineering difficulties
Cound Brook. Assess work required to achieve quality target	Env Agency	Assess work to improve quality	Manpower resources

<b>ISSUE NO: 9.2</b>	<b>Failure to comply with water quality objectives and EC standards Failures Involving Sewage Treatment Works</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>
Wesley Brook, Shifnal STW: Assess what improvements are necessary	STW Ltd Env Agency Local Authority	Improved water quality	Competition with other AMP3 priorities
River Tern, Market Drayton. Assess effects of sewer overflows and seek improvements	Env Agency STW Ltd	Improved water quality	Competition with other AMP3 priorities
River Salwarpe catchment		Improvement in river quality to meet and maintain quality targets	
i) Implement planned improvements to Droitwich and Stoke Prior STWs	Env Agency STW Ltd		
ii) Seek improvements to Bromsgrove and Stoke Prior STWs	Env Agency/STW Ltd Local Authority	As above	Competition with other AMP3 priorities
iii) Seek to tighten discharge consent limits at a Bromsgrove industrial site	Env Agency Industrialists	As above	Cost to industry
Lakehouse Dingle, Hampton Loade: Assess need for future investment at Alveley STW	Env Agency STW Ltd	Maintain target quality	Competition with other AMP3 priorities

<b>ISSUE NO: 9.3</b>			
Failure to comply with water quality objectives and EC standards Failure to meet EC Directive Standards			
Options/Actions	Responsibility	Benefits	Constraints
River Severn, Shrewsbury: Investigate cause of exceedance of EC limit for cadmium	Env Agency	Achievement of quality target	Interpretation and investigation of sample results difficult
Monitor Directive failures at sites	Env Agency	Protect potable water supplies	Cost and manpower implications
Assess impact of inputs from adits to Minsterley Brook	Env Agency	Prioritisation for future investment	

<b>ISSUE NO: 9.4</b>			
Failure to comply with water quality objectives and EC standards Revised quality targets and derogations			
Watercourse	Current Position	Proposed Change	Reason
Soulton Brook	Quality target RE2 (good)	To RE3 (fair)	Current objective too optimistic
Mad Brook, Haldane	Quality target RE2 (good)	To RE4 (fair)	Current objective too optimistic
Elmbridge Brook, Droitwich	Quality target RE2 (good)	To RE3 (fair)	Current objective too optimistic
River Meese	Fails objective due to algal matter	Derogate for effects of algae	Retain quality target for river

<b>ISSUE NO: 10</b>			
Impacts of water abstraction			
Options/Actions	Responsibility	Benefits	Constraints
Modelling of ground water units e.g. Cosford, Worfield and Bromsgrove	Env Agency	Stop baseflow depletion. Allows target cut-back areas to be defined	Model limitations
Move ground water abstraction points away from sensitive areas through AMP 3 e.g. Uckington PWS borehole	Water Undertakers Env Agency	Reduce local effects caused through abstraction	Cost of revocation and providing alternative source seen as a temporary measure only
Encourage conjunctive use of local sources within Worfe catchment to reduce seasonal over abstraction of surface water for spray irrigation	Env Agency	Reduces effect of abstractions at critical periods	Cost of moving sources
Encourage winter abstraction and storage e.g. River Worfe, Perry, Cound, other smaller brooks	Abstractors encouraged by Env Agency, MAFF/ADAS	Reduces impact of surface water abstraction financial incentive on charges	Seen as long term investment which requires commitment
Install new gauging station on Cound brook	Env Agency	More control on abstraction and less environmental impact	

### 3. Protection and improvement of our environment Issues 11 – 18

Issues 11 to 18 address the needs of the natural environment; the habitat, flora and fauna. Due to development pressures and land use changes many of our natural resources are being put at risk.

ISSUE NO: 11	Protection of existing high quality riverine and other wetland habitats		
Options/Actions	Responsibility	Benefits	Constraints
Prepare Water Level Management Plans for Aqualate Mere, Fernhill Pastures, Marton Pool and Rue Wood Pastures	Env Agency English Nature	Protection of water dependent sites of conservation interest	Limitations on river management practices
Reduce spread and extent of Giant Hogweed in catchment	Env Agency Local Authorities	Protection of native riparian flora. Reduction of health risk associated with this plant	
Seek additional EC fisheries designations on Sheinton, Cound, Mor, Borle, Coal, Minsterley and Claverley Brooks	Env Agency	Improved level of protection for existing fish stocks	



Giant Hogweed

ISSUE NO: 12	Protection of Biodiversity		
Options/Actions	Responsibility	Benefits	Constraints
Determine the present distribution and status of: water vole, crayfish, freshwater pearl mussel and depressed river mussel, and develop targets for the protection of these species	Env Agency English Nature Wildlife Trusts	Protection of sensitive species	Reliability of survey methodology
Investigate status of shad and opportunities for extension of breeding range	Env Agency	Protection and enhancement of shad populations	
Assess the distribution of alder disease to support Forestry Authority studies	Env Agency	Baseline information to assist Forestry Authority studies into causes and treatment of disease	
Determine the distribution, types and scope for regeneration of Black Poplars	Env Agency English Nature, Forestry Authority Local Authorities	Protection of Black Poplar trees in catchment	
Implement barn owl nest box scheme on River Perry	Env Agency Hawk & Owl Trust	Increase of barn owl populations in degraded habitat	



Black Poplar



Barbel

ISSUE NO: 13	Protection of high quality coarse fisheries		
Options/Actions	Responsibility	Benefits	Constraints
Review Fisheries Byelaws to control fish removals from watercourses	Env Agency MAFF	Reduction or prevention of illegal coarse fish removals	
Assess impacts of pike and zander on other fish stocks in the middle reaches of the River Severn and reduce predator biomass where appropriate	Env Agency Angling Clubs Fishery owners	Protection of fish populations and quality of angling	Possible adverse impacts on predator/prey relationships



<b>ISSUE NO: 13 (II)</b>	<b>Protection of game fisheries</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>
Maintain and improve security provisions at vulnerable locations near weirs on the River Severn	Env Agency	Protection of salmon from illegal fishing methods	Restrictions on access at weirs
Seek funding and plan for future installation of salmon passes on weirs at Diglis, Holt, Lincomb, Cound Mill and Walcot Sluices	Env Agency MAFF	Improved access for salmon to upstream spawning and nursery areas	Costs and reductions in GIA for salmon work
Review byelaws and voluntary restrictions on salmon fishing methods	Env Agency MAFF	Protection of valuable declining multi-sea-winter stock component	Restrictions on fishing opportunities
Seek funding and re-establishment of Shrewsbury salmon counter	Env Agency MAFF	Data to assist long term management of River Severn salmon stocks	Costs and reductions in GIA for salmon work

<b>ISSUE NO: 14</b>	<b>Protection of high quality water resources</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>
Undertake programme of pollution prevention site inspections in catchment and around water supply boreholes	Env Agency Industry Farmers	Protection of existing uses of waters	Limited powers to enforce measures at all sites
Assess the possibility of installing pollution monitoring equipment at points in the catchment	Env Agency	Better detection and response to pollution incidents	Limited range of pollutants detected. Cost
Ensure that pesticides from the wool processing industry in Telford do not affect the River Severn	Env Agency STW Ltd. Wool Processing Industry	Protection of existing river uses.	

<b>ISSUE NO: 15</b>	<b>Water temperature impact of Shropshire Groundwater Scheme on the aquatic habitat</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>
Investigate the extent and impact of temperature changes in receiving watercourses	Env Agency	Protection of fish and invertebrate fauna	Limitations in operational options of scheme

<b>ISSUE NO: 16</b>	<b>Threats to the Farley Brook, Much Wenlock</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>
Monitor the disposal of liquid waste stored on industrial site	Shrops. County Council Env Agency Site Owners	Ensure safe disposal of material	
Assess current and future flows from Much Wenlock STW and their impact on the brook	STW Ltd. Env Agency Local Authority	Integration of development with sewerage improvements	STW not in current AMP programme
Assess the effects of increasing abstraction from Much Wenlock borehole	Env Agency STW Ltd	Protection of brook flow and quality No licensing provisions	Hydrological predictions difficult

<b>ISSUE NO: 17</b>	<b>Stability in the Ironbridge Gorge Area</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>
Investigate further study situation	Inter- Agency group	Better understanding of the problem. Solution may be determined	Cost of study
Pursue solution	Inter- Agency group	Gorge becomes more stable, risks to rivers and roads reduced	Cost of works and possible adverse environmental effects



Worcester in flood

<b>ISSUE NO: 18</b>	<b>Flood alleviation schemes</b>		
<b>Options/Actions</b>	<b>Responsibility</b>	<b>Benefits</b>	<b>Constraints</b>
Evaluate flood alleviation scheme for the Diglis area of Worcester	Env Agency	Potential for alleviation of flooding problem	High river level data required. Costs of the works are currently assessed to be higher than the benefits

#### 4. Opportunities for sustainable development Issues 19 – 22

Focus on development and management of our environmental resources and the potential for further development opportunities.

ISSUE NO: 19	Opportunities for amenity, recreation and navigation		
Options/Actions	Responsibility	Benefits	Constraints
Implement marketing and promotion strategy for the Severn Way footpath	Local Authorities Env Agency	Increased use of facility. Economic 'spin offs'	
Seek opportunities for increased recreational and amenity use of rivers in urban areas (eg Worcester and Shrewsbury)	Env Agency Local Authorities	Increased public access and enjoyment of river environments	Possible impacts on environmental interests and conflicts with existing users
Develop regional rowing centre on River Severn at Worcester	Sports Council Worcester Rowing Club	Training, competition and coaching facility	As above
Seek opportunities for better access to and use of watercourses by disabled persons (eg Upton Warren and Telford Town Lakes)	Env Agency Local Authorities Sports Council	Improved facilities for disabled users	
Undertake River Habitat Surveys of middle reaches of the River Severn	Env Agency	Improved information on river conservation value and potential impact of navigation proposals.	Conflicts of interests between different user groups
Develop an Agency Navigation Strategy for the River Severn	Env Agency British Waterways	Protection of interests of all river users	Funding Acquisition of land
Restore the Droitwich Canal navigation	Wychavon DC Hereford & Worcester CC	Navigation link between Birmingham & Worcester Canal and the River Severn	Cost impacts on possible environmental interests
Update and reprint the River Severn canoe guide	Env Agency British Canoe Union	Public awareness of available facilities and safety issues	





Landfill site

<b>ISSUE NO: 20</b>		The management of industrial and commercial wastes		
Options/Actions	Responsibility	Benefits	Constraints	
Expand the Waste Minimisation Initiative to cover the plan area	Env Agency & partners	Reduced commercial and industrial waste arisings. Increased environmental awareness	Process of culture change within companies is a slow process. Resources	

<b>ISSUE NO: 21</b>		River Severn Control Rules		
Options/Actions	Responsibility	Benefits	Constraints	
Review and reassess Control Rules	Env Agency	Potential for: i) increased operational efficiency provided by local control points in the upper and lower catchment ii) habitat improvement iii) Opportunity to review the scope and use of the river	i) Residual flow required to the estuary; to maintain abstracted water quality at Gloucester and to enable the passage of migratory fish ii) flow requirements for effluent dilution and water abstraction iii) change in legal statute may be required	

<b>ISSUE NO: 22</b>		Floodplain management		
Options/Actions	Responsibility	Benefits	Constraints	
Press for the policies in the Agency document "Policy and practice for the protection of floodplains" to be included in Local Plans to protect floodplain from development	Env Agency Local Planning Authorities	New properties do not flood, existing problems not aggravated. Minimises risk to people and property	Limitation of developable land	
Persuade Local Authorities that long term strategic withdrawal from the flood plain is the only sustainable option	Env Agency Local Planning Authorities Riparian Owners	Alleviation of existing flooding. The floodplain can be used for recreation, wildlife and amenity	Policy can only be applied when the opportunity arises. Costs of relocation. Riverside frontage is attractive to landowners	

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**Abbreviations used in this document:**

<b>ADAS</b>	Agricultural Development Advisory Service
<b>AMP</b>	Asset Management Plan
<b>Env Agency</b>	Environment Agency
<b>GIA</b>	Grant in Aid
<b>MAFF</b>	Ministry of Agriculture Fisheries and Food
<b>STW Ltd</b>	Severn Trent Water Ltd

**MANAGEMENT AND CONTACTS:**

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

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

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**ENVIRONMENT AGENCY  
GENERAL ENQUIRY LINE**

**0645 333 111**

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