

local environment agency plan

STAFFORDSHIRE TRENT VALLEY

FIRST ANNUAL REVIEW
JUNE 1999



ENVIRONMENT
AGENCY

Staffordshire Trent Valley Local Environment Agency Plan (LEAP)

Previous LEAP Documents

Staffordshire Trent Valley LEAP Consultation Report
June 1997

Staffordshire Trent Valley Consultation Report Summary
June 1997

Staffordshire Trent Valley LEAP Action Plan
February 1998

If you or your organisation need further information or copies of any of the above documents, please contact:

Antony Lancaster
LEAP Planner

Environment Agency
Sentinel House
Wellington Crescent
Fradley Park
Lichfield
Staffordshire
WS13 8RR

Telephone: 01543 444141

Fax: 01543 444161

E-Mail: antony.lancaster@environment-agency.gov.uk

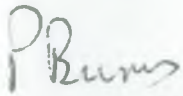
FOREWORD

The Environment Agency has responsibility for protecting and enhancing the whole environment through the promotion of sustainable development. One way of achieving this aim is through the production of Local Environment Agency Plans (LEAPs), which provide a framework for protecting and improving our local environment.

This is the first Annual Review of the Staffordshire Trent Valley LEAP. Its purpose is to report on the progress that has been made by the Agency and others during the past year, in tackling the issues identified in the Action Plan.

The progress that has been made over the last twelve months reflects the commitment of all those involved in the plan and highlights the importance of the partnership approach developed through the LEAP process. As the demand upon limited funds continues to increase it is even more vital that the momentum of environmental improvement is kept going through partnerships and collaborative ventures.

I look forward to developing further the positive achievements made so far with our partners, as we work together to enhance our environment in the coming year.



Philip Burns
Area Manager – Upper Trent

ENVIRONMENT AGENCY

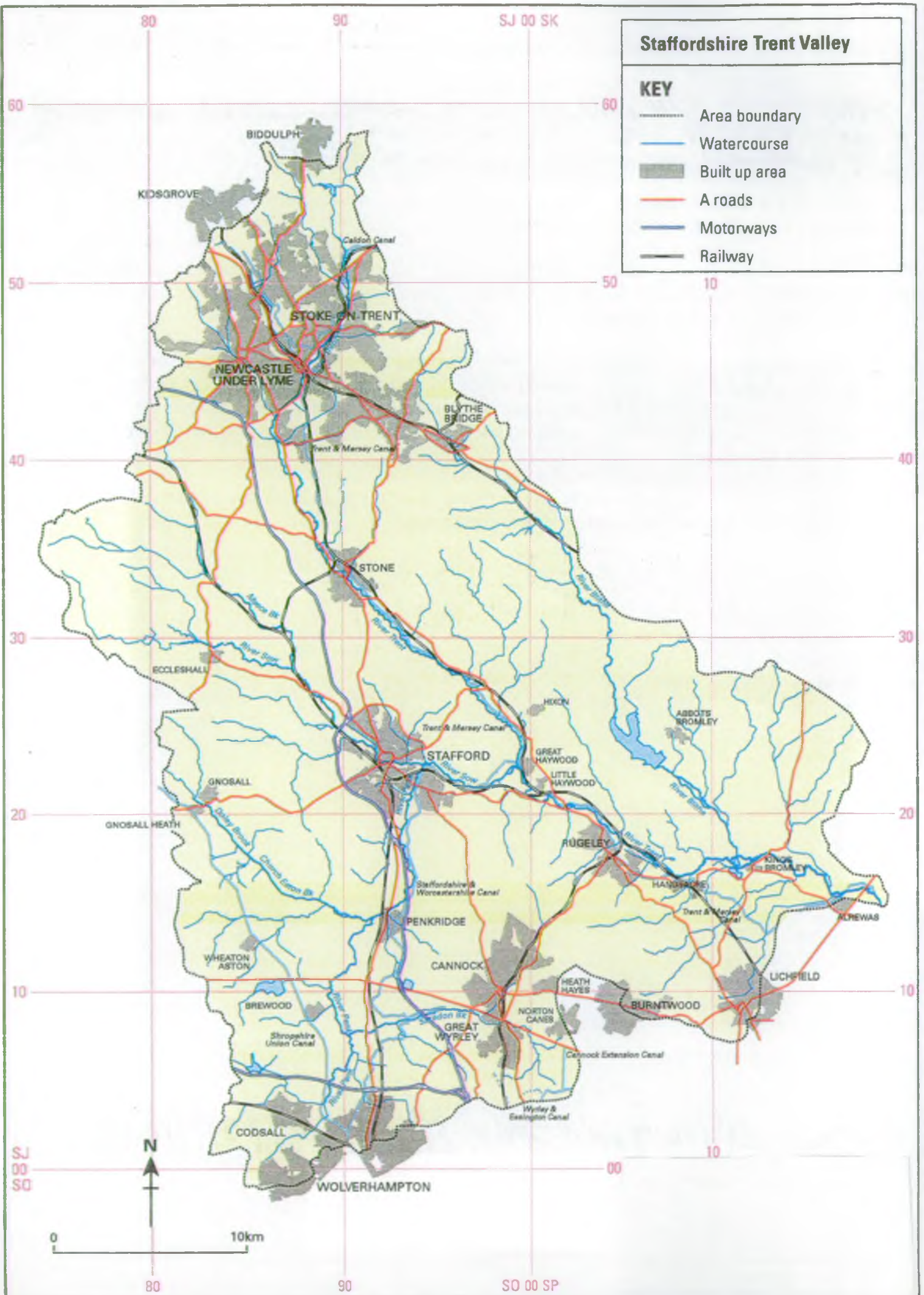


030397

Staffordshire Trent Valley

KEY

-  Area boundary
-  Watercourse
-  Built up area
-  A roads
-  Motorways
-  Railway



EXECUTIVE SUMMARY

This Annual Review summarises the progress made in achieving targets to improve the local environment in the Staffordshire Trent Valley area in the year since publication of the Action Plan in February 1998. Many parties have made positive progress pursuing the actions that were planned for the year, either as individual organisations or in collaborative projects.

Of the 91 actions planned for the year, progress has been made on 46 and 23 have been completed however 22 have been delayed.

A number of key partnerships and collaborative initiatives are under way. These include:

- A scheme to determine the water regime in the South Staffordshire Coalfield with the Coal Authority and South Staffordshire Water.
- Joint investigations with local companies in Four Ashes to determine the extent of groundwater contamination in the locality.
- A Memorandum of Understanding signed between the Agency and South Staffordshire Water covering joint working arrangements on the Rising Brook at Cannock.
- Expansion of the waste minimisation initiative in partnership with the Staffordshire Waste Minimisation Group, LA21 projects, local authority Environmental Co-ordinators and Staffordshire Business Environmental Network.
- Reduction of ceramic waste in partnership with the British Ceramics Confederation, the Ceramics Research Association and local companies.
- The production of a supplementary planning guidance document, the Stoke on Trent River Strategy, in partnership with the City of Stoke on Trent Council, that will allow consideration of river corridor improvements along the River Trent and Fowlea Brook.

The tables in Section 4.0 form an integral part of this review, and should be referred to for a summary of progress on each action. The background information relating to each issue is detailed in the original Action Plan.

CONTENTS

	Page No
Foreword	i
Executive Summary	iii
1.0 Vision	1
2.0 Introduction	2
2.1 Local Environment Agency Plans	2
2.2 The Staffordshire Trent Valley Area	2
2.3 Update on events in the LEAP area	3
3.0 Summary of Progress	5
3.1 Notable achievements and disappointments	5
3.2 New actions	6
4.0 Actions Update and Action Tables	7
4.1 List of Issues	7
5.0 Future Reviews	42
Appendices	
Appendix 1 Current Status of Local Authority Development Plans	43
Appendix 2 Pollution Incidents in the Staffordshire Trent Valley Area	44

1.0 Vision for the Staffordshire Trent Valley

The Environment Agency's vision for the Staffordshire Trent Valley area is:

The population of Staffordshire working together to create a sustainable environment that is attractive, clean and diverse, meeting the needs of people whilst maintaining and enhancing the diversity of flora and fauna. An environment that both contributes to the economic and social well being of the area and to the stabilisation of the global environment.

This can be achieved by:

- The education and involvement of local people
- The protection of good quality land and water resources, nature conservation and wildlife habitats
- Minimising pollution of air, land and water
- The revitalisation of existing urban centres and the remediation of contaminated land and areas of poor environmental quality through redevelopment and renewal
- Improving the appearance, character and habitat diversity of the rural environment

Key to this vision is the creation of a more sustainable urban environment within the North Staffordshire conurbation.

Key objectives for the Environment Agency are:

- Improving water quality in ground and surface waters
- The protection of the ecology of wetlands and baseflows to rivers and streams through the efficient and proper use of water resources
- Working in partnership with local authorities to develop effective and consistent air quality monitoring systems with the aim of improving air quality, where necessary, by the effective regulation of industry
- The renewal of river corridors to improve water quality, wildlife habitats, public access and to create a more natural river regime
- To educate and raise awareness of the environment and environmental issues
- The protection of rare and threatened species
- To realise the environmental potential of urban land through redevelopment and renewal
- The development of a healthy and sustainable fishery along the length of the River Trent, its major tributaries and in urban park pools
- The development of local waste minimisation programmes to meet national waste targets particularly in the ceramics industry

Some of these objectives have common goals, whilst others may require a degree of compromise between differing demands on the resources of the area. Together through commitment and enthusiastic co-operation, the Agency's vision for Staffordshire Trent Valley can become a reality.

Realisation of the vision will be achieved through a balanced management approach to all activities.

2.0 Introduction

2.1 Local Environment Agency Plans

For the Agency to fulfil its role and responsibilities it needs to manage the environment effectively and to work in partnership with others. Local environment planning is an important tool in this process. The plans are non-statutory, integrated action plans based on local river catchments. They provide a focus for those concerned with the future of the local area. The timetable for achieving LEAP coverage for all the catchments in England and Wales is by the end of 1999.

LEAPs will 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 liaison and partnership with key groups
- Educating the public on local and environmental issues
- Prioritising issues and establishing an action plan for managing and improving the local area over the past 5 years.

2.1.1 The Staffordshire Trent Valley LEAP

The Staffordshire Trent Valley LEAP Consultation Report was produced in June 1997. This outlined environmental issues within the area, and options for their solution. Following a three-month period of consultation the Action Plan was published in February 1998. This included a five-year programme of actions for improvements to the local environment, and outlined areas of work and investment proposed by the Environment Agency and others.

An important part of the LEAP process is to monitor the Action Plan and ensure that targets are achieved, actions completed and that the plan continues to address relevant issues in an appropriate manner. This first Annual Review summarises the progress made since publication of the Action Plan and reports on the period March 1998 to February 1999 inclusive. This document is therefore, part of the ongoing process for the Staffordshire Trent Valley area.

The action tables in section 4.0 have been reproduced as they appeared in the Action Plan with an additional column in which progress for the year is reported.

2.2 The Staffordshire Trent Valley Area

The Staffordshire Trent Valley LEAP area covers most of Staffordshire and includes parts of Wolverhampton and Walsall and a very small part of Shropshire. It is defined by the area of land that drains to the River Trent above its confluence with the River Tame.

The population of approximately 820,000 is concentrated in the urban conurbation of Stoke on Trent and Newcastle under Lyme, the northern outskirts of Wolverhampton and the major towns of Stafford, Cannock and the city of Lichfield. The M6, M54 and the West Coast main railway line cross the catchment. In terms of land use, Staffordshire Trent Valley is predominantly rural with dairy farming in the north and arable farming in the south. Unemployment is below the national average at 5.4% and manufacturing remains important in the local economy, providing nearly 30% of all jobs. Ceramics and engineering remain an important part of the economic base.

Both the North Staffordshire conurbation and the West Midlands conurbation are ringed by green belts. The North Staffordshire greenbelt extends as far north as Rugeley and Lichfield. Located in the heart of England, the catchment has a temperate marine climate, with rainfall significantly higher in the north around Stoke-on-Trent and the surrounding high ground.

Stoke-on-Trent is traditionally known for its pottery industry and for coal and steel production. This is now broadening to include new manufacturing and service industries. The conurbation is attracting major inward investment and this is providing opportunities for an improved local environment as well as a more secure economic base.

Staffordshire Trent Valley includes Cannock Chase; the county's only Area of Outstanding Natural Beauty (AONB) and the second smallest AONB in Britain. It contains one of the largest country parks in Britain and virtually all of the area is designated as a SSSI for its nature conservation value.

There are 26 SSSIs in the catchment and include a number of vulnerable habitats and endangered species of animals and plants.

2.3 Update on events in the LEAP area

Flood Defence

There have been several flood events within the area during 1998, the most significant of which occurred in October. Flooding primarily affected Newcastle under Lyme, Norton Green, and localised parts of Stafford.

The Agency has been working closely with Stoke on Trent City Engineers to resolve the flooding problem on the River Trent at Norton Green. At this location the Trent is designated as an ordinary watercourse, and consequently the Agency is unable to undertake a flood alleviation scheme. However, the Agency has written a preliminary report regarding the flooding and has recommended that Stoke on Trent undertake a full feasibility study to determine possible solutions. The Agency will provide support and offer advice wherever necessary. The Main River Steering Group (a sub group of the Regional Flood Defence Committee) has agreed to review the designation for this length of the Trent once the feasibility study has been completed.

Widespread flooding occurred across the country during Easter 1998, although this area was not severely affected. An Action Plan was published in November, addressing recommendations made following the "Bye Report" into the Easter Floods. The Agency is already making good progress with actions that will lead to improved operations and public understanding.

Over 30 additional owners and occupiers of property at risk of flooding have been added to the Automatic Voice Messaging (AVM) flood warning system.

Water Resources

The Agency's annual reassessment of the availability of groundwater resources within the Teddesley and Rugeley groundwater management units has reclassified these units to allow only limited further development of groundwater resources. In accordance with the policy for the Midlands Region, most abstraction licences issued are now subject to a time limit.

National Waste Production Survey

The Environment Act 1995 placed a duty on the Secretary of State to prepare a National Waste Strategy. In order to help plan the provision of waste disposal recycling and reprocessing facilities in the future and to provide the baseline information for the government's emerging National Waste Strategy, the government asked the Environment Agency to carry out a survey to determine how much waste is produced by industry and commerce throughout the country and how the waste is managed.

The survey was completed during the period October 1998 to March 1999 and involved the Agency or agents acting on behalf of the Agency contacting in excess of 20,000 companies (some 300 – 350 located within the catchment), representing some 3% of all businesses. Once collated the Agency will be able to produce data for business sectors from which national, regional and local waste production totals can be estimated.

Caldon Canal, Norton Green

In spring 1998 the Agency was notified that groundwater was issuing onto land to the north of Engine Lock at Norton Green adjacent to the Caldon Canal. The discharge had resulted in the flooding of approximately 2Ha of land before the water entering the River Trent. British Waterways and IMC Consultants subsequently raised concerns about the stability of the canal bank and its foundations.

Investigations by IMC indicated that rising minewater from Norton Colliery, approximately 1km to the south-east, was reaching the surface at this location through old, unrecorded workings from numerous shafts and adits in the hillside to the west.

The Agency, British Waterways and IMC have worked together to devise a temporary strategy to alleviate the pressure on the canal structure. This will require the construction of a borehole on the upstream side of the canal directly opposite the discharge, which will be used to intercept the minewater and divert it to the canal. The Agency has given its consent to the scheme and it is anticipated that construction of the borehole will commence in the summer of 1999.

3.0 Summary of Progress

3.1 Notable achievements and disappointments

Notable achievements:

- A UPM scoping study has been completed on the River Trent catchment upstream of Strongford sewage treatment works.
- The two year River Trent dye tracing project has, with the exception of 4 low flow surveys, been completed.
- All CSO improvement schemes due for completion within this reporting period have been completed and the discharge operations have been markedly reduced.
- The AMP3 list has been finalised and agreed with the DETR. There will be 56 CSO improvement schemes on the sewerage system of Stoke-on-Trent and Newcastle-under-Lyme plus several groundwater resources schemes in the LEAP area.
- The work to determine the required consent conditions for sewage treatment works to prevent RQO and Fisheries Directive failures has been completed and the figures were used in AMP3 determinations.
- The extent of groundwater pollution in the Four Ashes area has now been well defined following completion of a number of site investigations.
- A Memorandum of Understanding between South Staffordshire Water and the Environment Agency was signed in December 1998 covering joint working arrangements on the Rising Brook at Cannock.
- The Agency and British Waterways have agreed that a flow of 9MI/d will be retained on the Saredon Brook. Approximately £30,000 has been spent to repair and modify the control structure that regulates the amount of water diverted to the Staffs & Worcester and Trent & Mersey canals.
- There has been regular exchange of information/ideas between the Agency and Staffordshire Waste Management Group.
- The Agency worked with local businesses during the development and promotion of the Staffordshire Trent Valley Waste Minimisation Club.
- The Agency held a breakfast meeting at the British Ceramics Confederation to discuss improving environmental performance in the ceramics industry. Agency staff have also given a number of talks re. Waste Minimisation/Recycling/Packaging Regulations to local businesses and organisations.
- Severn Trent Water Limited and the City of Stoke on Trent Council have completed improvements to the Liverpool Road surface water sewer in Stoke on Trent and the Agency has constructed a new trash screen.

There have been some disappointments:

- The proposed river habitat surveys by the Agency on the River Trent from Tittensor to Hoo Mill have not been undertaken due to a lack of available funds.
- The proposed River Quality Objective (RQO) upgrades have not been confirmed due to an ongoing review of the way RQOs are determined.
- To date there has not been any liaison between the Agency and the Highways Agency re. the M6 and its impact on Groundslow Pools.
- The completion of the strategic study of flood defences along the River Sow in Stafford has been delayed but should be completed this year.
- Work to tackle flooding from the Rising Brook in Stafford has been delayed but should progress in 99/00.
- A pilot project with Staffordshire local authorities to produce a good waste minimisation practice guide for householders has not progressed due to a lack of available funds. It is anticipated that this will progress in 99/00.

3.2 New actions

Several new actions have been introduced this year:

Issue 16 Biodiversity in Staffordshire Trent Valley (Agency Officer A Crawford)

The Agency is working closely with Staffordshire Wildlife Trust on the implementation of the Staffordshire Biodiversity Action Plan (BAP) that was published in November 1998. The plan sets out targets to measure the success of the BAP. The targets included here are those that the Agency has responsibility for. They have been taken from the BAP and amended for the Staffordshire Trent Valley LEAP.

16.6 Black Poplar

New action – include native Black Poplar in 50 appropriate planting schemes in Trent Valley.

New action 16.9 -Wetland Habitats in Staffordshire Trent Valley

Wetland environments include a whole variety of types from rivers and streams to wet grassland, gravel pits and ponds, all of which are valuable for nature conservation. Many are under pressure from poor management, development, engineering works and pollution. The Agency is seeking to re-create wetland habitats whenever possible through development and liaison with landowners.

Sub-actions:

- Create 20 hectares of shallow pools by 2005 through the restoration of gravel pits.
- Increase the total amount of wet woodland by 40 hectares by 2005.
- Create 50 hectares of reedbed including at least one of over 20 hectares by 2005.
- Create 20 new non-recreational ponds by 2005.
- Improve and enhance 20 km of river corridor by 2005 including reinstating channel and backwater features, tree planting etc.

Issue 20 Review of Flood Defences in Stafford (Agency Officer R Burton)

New action 20.4 – Identify properties within flood risk areas in Stafford town centre and other Direct Flood Warnings to those at risk.

4.0 Actions Update

The following tables have been taken from the Action Plan, and updated to show progress on the 27 Issues in the LEAP, and any changes that have occurred. Progress for each action is summarised in the column on the right hand side. Where actions are shown in bold, this indicates they have been added at this Annual Review stage. Revised costs are also shown in bold.

Key

<	Less than
•	Action in the year indicated (cost figures given if known)
R	Recurring – no additional costs to annual budgetary provision
U	Unknown costs at this time
*	Only Agency costs identified here. Costs to other organisations unknown
K	£1,000

Abbreviations

AQOs	Air Quality Officers	IDD	Internal Drainage District
BCC	British Ceramics Confederation	LA	Local Authorities
BTCV	British Trust for Conservation Volunteers	MoU	Memorandum of Understanding
BW	British Waterways	PREMCO	Poplars Resource Management Company
CA	Coal Authority	SBC	Stafford Borough Council
CSO	Combined Sewer Overflow	SBEN	Staffordshire Business and Environment Network
CERAM	Ceramics Research Association	SCC	Staffordshire County Council
DC	District Council	SMEs	Small to Medium Sized Enterprises
DETR	Department of the Environment, Transport and the regions	SoT	City of Stoke on Trent Council
EA	Environment Agency	SSW	South Staffordshire Water
ETBPP	Environmental Technology Best Practice Programme	STW Ltd.	Severn Trent Water Limited
HA	Highways Agency	SWT	Staffordshire Wildlife Trust

AMP 3 (Asset Management Plan No. 3)

Asset Management Plans (AMPs) are strategic plans for programmed investment in the infrastructure of private water companies, so that they might meet obligations relating to water supply and sewage treatment. The Government has recently agreed the programme of investments for AMP3 (2000-2005) and in the Midlands Region the figure for spending by water companies will be approximately £0.8 billion.

New Actions

Several new actions have been included in this review and are shown in bold in the tables (also see page 6).

4.1 List of Issues

Issue 1	The use of the River Trent as a public water supply source.
Issue 2	The sewerage system in Stoke-on-Trent and Newcastle under Lyme.
Issue 3	River Quality Objective failures.
Issue 4	Poor fishery and poor biological quality in the River Trent from Tittensor to Hoo Mill.
Issue 5	Potential River Quality Objective (RQO) and Fisheries Directive failures due to consented discharges.
Issue 6	River stretches that can be upgraded to protect water quality.
Issue 7	The potential impact of colliery closures in the South Staffordshire Coalfield on the water environment.

Issue 8	The current level of air quality monitoring.
Issue 9	Environmental monitoring of IPC authorisations.
Issue 10	Groundwater pollution at Four Ashes near Wolverhampton.
Issue 11	Pesticide contamination in Moors Gorse and Slitting Mill public water supply boreholes.
Issue 12	The environmental impact of public water supply abstraction on the Rising Brook, Cannock.
Issue 13	Sustainability of groundwater resources.
Issue 14	Abstraction rights exercised by British Waterways.
Issue 15	Review of flow restricted abstractions in the River Sow catchment.
Issue 16	Biodiversity in Staffordshire Trent Valley.
Issue 17	Redevelopment along the banks of the Fowlea Brook and the River Trent in Stoke-on-Trent.
Issue 18	Improving the habitat on the Rivers Sow and Penk.
Issue 19	Protection and management of water related Sites of Special Scientific Interest (SSSIs).
Issue 20	Review of flood defences in Stafford.
Issue 21	Flooding from the Rising Brook, Stafford.
Issue 22	Meeting "Making Waste Work" targets.
Issue 23	Quantity of ceramic waste arising in the area.
Issue 24	Poplars landfill site, Cannock.
Issue 25	Flooding from the Fowlea Brook at Liverpool Road, Stoke-on-Trent.
Issue 26	Surface water flooding at Brindley Ford, Stoke-on-Trent from Brown Lees open cast coal site.
Issue 27	Fisheries management of municipal park pools in Stoke-on-Trent and Newcastle under Lyme.

Issue 1: The Use of the River Trent as a Public Water Supply Source

Objective: To improve water quality in the river to meet drinking water standards

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
1.1 Special Sampling Programme <ul style="list-style-type: none"> Yearly Reports Investigation into any highlighted problems Review of consents and authorisations as necessary 	EA		85	17	17	17	17	17		<p>Ongoing. Internal report produced in 1998, reporting 1997 data.</p> <p>Consent reviews are tied in with a possible UPM study and AMP3. UPM – a scoping study to determine if a full UPM study is needed has been completed. A decision on the necessity of a UPM study has not yet been finalised.</p>
1.2 Complete River Trent catchment dye tracing project to improve knowledge of travel time and dispersion characteristics of polluting inputs	EA	STW Ltd, SSW	66							<p>The project is expected to end on 1 April 1999, however 4 low flow surveys have not been completed because weather conditions did not allow. The Agency is seeking to get money carried over into this next financial year to complete the work. Charges are being apportioned to the water companies.</p>

Issue 2: The Sewerage System in Stoke-on-Trent and Newcastle under Lyme

Objective: To improve water quality and the appearance of rivers and streams in Stoke-on-Trent and Newcastle under Lyme

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
2.1 Completion of scheduled improvements under AMP2	STW Ltd	EA	3,000	.	.	.				<p>Mill Farm CSO – application and scheme imminent.</p> <p>Poplar Lane CSO – work completed in 1997</p> <p>St Michael Rd CSO – Work completed in 1998</p>
- Mill Farm Combined Sewer Overflow				.	.	.				
- Poplar Lane CSO				.						
- St Michael Rd CSO				.						<p>CSO operations markedly reduced. Visible sewage debris greatly reduced.</p>
2.2 Assess the impact of the improvements under AMP2	EA	STW Ltd	R			
2.3 Negotiate and finalise details for investment under AMP3 to include a UPM model of the sewerage system	EA	STW Ltd	6		3	3				<p>AMP3 list finalised and agreed with DETR. 56 CSO improvement schemes agreed within the sewerage system of Stoke-on-Trent and Newcastle under Lyme. See also 1.1 re: UPM study.</p>

Issue 3: River Quality Objective Failures

Objective: To improve water quality to meet agreed objectives

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
3.1 Cope Mere – Eccleshall Eccleshall – Hilcote Hilcote – Chebsey										
- Undertake a detailed study of the Mere and its surrounding catchment to identify nutrient sources	EA		15	•	•	•				Ongoing. Results to date indicate that there is natural eutrophication due to high levels of phosphate occurring naturally in the local groundwater.
- Review options	EA		R*		•	•				To be determined.
3.2 Church Eaton Brook Apeton Road Bridge to the Whiston Brook										
- Pursue improvements to Wood Eaton Sewage Works	EA	STW Ltd, OFWAT	R*	•						Work delayed. The improvements have now been proposed as an AMP3 scheme.
- Improvements to works to meet tighter consent conditions if AMP3 bid is successful	STW Ltd	EA	U						2000-2005	AMP3 list finalised and agreed with DETR. (See also 2.3)
3.3 River Trent, Abbey Hulton to Leek										
- Investigate and locate pollution sources.	EA, STW Ltd		R*	•	•	•				A major polluting source from Mill Farm CSO will be dealt with in 1999 under AMP2 (see 2.1). 2 additional CSOs may also be improved under the above scheme. The Agency prosecuted Severn Trent Water Limited in 1998 following a pollution incident to the River Trent from a CSO off Leek Road at Abbey Hulton. The company was fined £8,000.

Issue 3: Continued

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
3.4 Park Brook - Lymes Cottages, Seabridge to the River Trent	- Monitor completion of investment scheme by Severn Trent Water Limited for Mill Farm Combined Sewer Overflow improvements.	EA	STW Ltd	R*	•	•	•			See 2.1 and above.
	- Negotiation of future investment programme by STW Ltd. 2000-2005 (AMP3)	EA	STW Ltd, OFWAT	R*	•	•				See 2.3
	- Possible sources have been identified and work is underway. No further action proposed other than monitoring	EA, STW Ltd	R*	•						Problem resolved. No RQO failures in 97/98

Issue 4: Poor Fishery and Poor Biological Quality in the River Trent from Tittensor to Hoo Mill

Objective: To investigate the causes of the poor fishery and poor biological quality and to undertake remedial action

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
4.1 Introduce a more detailed chemical analysis of this stretch	EA		10	5	5					Additional sampling was introduced as part of the Special Sampling Programme on the River Trent (see Issue 1).
4.2 Set up continuous ammonia/dissolved oxygen monitoring. Consider the installation of a permanent water quality monitor	EA	STW Ltd	5	.	.					Three temporary water quality monitors have been installed on the River Trent. The monitors will remain in situ throughout this coming summer to facilitate data collection during low flow periods.
4.3 Undertake river habitat surveys to investigate habitat restrictions	EA	Wildlife Trusts	10	5	5					This work has not commenced due to lack of available funds.
4.4 Investigate remedial actions on results of investigations	EA Other groups		U		.	.	.			Dependent on 4.3 (see above comment)

Issue 5: Potential River Quality Objective (RQO) and Fisheries Directive Failures due to Consented Discharges

Objective: Use the "SIMCAT" model to set discharge consent conditions to ensure RQO and Fisheries Directive Compliance

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
5.1 Use the SIMCAT model to complete the:										
- Assessment of the compliance with the long term RQO and Fisheries Directive (where relevant) if all existing discharges within the catchment only just complied with their existing consent conditions for both flow and quality	EA		1	.	.	.				The use of the SIMCAT model has been delayed pending guidance from the Midlands Regional Office, however the work is being undertaken using different predicting techniques.
- Calculations necessary to set consent conditions that will achieve the long term RQO and, where relevant, with the Fisheries Directive, for each stretch in the catchment	EA		1	.	.	.				Work completed (not using SIMCAT) and figures were submitted for AMP3 negotiations.
5.2 Plan consent reviews accordingly and set priorities for AMP3	EA		R*	.	.	.				This work will commence in 1999.

Issue 6: River Stretches that can be Upgraded to Protect Water Quality

Objective: Secure improved water quality by upgrading River Quality Objectives (RQOs)

Actions		Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
		Lead	Other								
6.1	<p>Upgrade the long term objective for the following stretches:</p> <p>River Trent – Confluence with the Fowlea Brook to Hanford (2.8km) RE5-RE4</p> <p>Gayton Brook - B5027 road bridge, Milwich to confluence with the River Trent (6km) RE3-RE2</p>	EA		R	.						<p>The Agency is reviewing the way RQOs are determined and until the review is completed, all planned upgrades have been put on hold.</p>

Issue 7: The Potential Impact of Colliery Closures in the South Staffordshire Coalfield on the Water Environment

Objective: To prevent mine waters polluting ground and surface waters

Actions		Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
		Lead	Other								
7.1	Through the working group liaise with local authorities and others to identify and prioritise the work needed to deal with future impacts.	EA, CA, SSW	LAs	R*	.						Completed.
7.2	Undertake the work necessary to obtain the extra information required.	EA, CA, SSW		20	10	10					In 97/98 an investigation borehole, jointly financed by the Coal Authority/SSW and the Agency was drilled into old workings. These were identified as dry. Further work is planned to drill another borehole within the Littleton Colliery area. Pumping trials at Mid Cannock are continuing, to provide additional information on the water regime in the mine workings.
7.3	Prepare a long term action plan, to include new monitoring and testing as required.	EA, CA, SSW		20		10	10				The risk to the Triassic Sandstones aquifer is now considered to be more remote than when the report was originally prepared. The risk to SSW boreholes in the north of the area is not considered to be as significant as first thought and further monitoring should provide more information to confirm this situation.
7.4	Implement plan	EA, CA, SSW		U							The long term action plan will be published this next financial year, but it is already being implemented in this area.

Issue 8: The Current Level of Air Quality Monitoring

Objective: To quantify the impact of IPC processes on National Air Quality Objectives and, where relevant, to areas of particular sensitivity to airborne pollutants so that priorities may be set in process improvements. To carry out a review of the available air quality data within the LEAP area and identify any requirements for further monitoring or dispersion modelling

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
8.1 Establish working relationship with LA Env. Health Units or equivalent in LEAP area	EA	LAs	R	*						The Agency has been working in partnership with local authorities via county based grouping of Environmental Health Officers working on air quality issues. Most county group meetings have been attended and presentations given on the Agency's role and support available for the National Air Quality Survey.
8.2 Assess air quality monitoring needs in LEAP area; agree joint action plan with LAs where appropriate	EA	LA, AQOs	R		*	*				Local Authorities have started the air quality review process. The process will continue in 1999/00 but Air Quality Management Areas will have to be declared by December 1999. The requirement to develop joint action plans will follow and will involve a partnership approach between local government, the Agency and industry.
8.3 Agree common data sets	EA	DETR, LAs	R	*						A regional air quality database has been developed that draws on air quality data from 1995 for over 700 monitoring stations operated by LAs throughout the region. A database has also been developed containing location, process and release information of air quality substances from Agency regulated processes.
8.4 Identify IPC processes with potential significant impact on air quality*/environmentally sensitive sites. *(local or regional review modelling/sampling programmes and approve action plan)	EA, LAs		R	*	*					The Agency has produced maps illustrating the level of air pollutants in each region. Together with a knowledge of the IPC process this has allowed the Agency to identify locations where the most pronounced, w.r.t air quality, effect of the process it regulates are likely to occur. Such locations are termed a "zone of industrial pollution" (ZIP) because they generally occur where there are concentrations of IPC processes. There has been close liaison with individual LAs with particular air quality concerns or problematic Agency regulated processes.

Issue 8: Continued

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
8.5 Implement action plan from 8.4 with input from 8.2	EA		50*	10	10	10	10	10		The Agency will prioritise its actions in ZIPs. Partnerships will be developed with LAs in locations where air quality is significantly affected by Agency regulated processes. In conjunction with LAs and industry the region will work towards achieving the 2005 air quality objectives.

Issue 9: Environmental Monitoring of IPC Authorisations

Objective: To develop a consistent and mutually beneficial approach to environmental monitoring with local authorities in the LEAP area. To determine the environmental levels of persistent toxic pollutants (heavy metals, organochlorine compounds, dioxins/furans) potentially released from regulated processes to air. Assess whether local ambient concentrations require additional controls beyond those already imposed

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
9.1 Establish working relationship with LA Env. Protection Units or equivalent in LEAP area	EA		R*	•						The Agency has been working in partnership with local authorities via county based groupings of Environmental Health Officers working on air quality issues. Most county group meetings have been attended and presentations given on the Agency's role and support available for the National Air Quality Survey.
9.2 Identify IPC sites where potential release/local concerns justify a local environmental survey	EA	LAs	R*	•						See below.
9.3 Agree site specific monitoring programmes with LAs and operators	EA	LAs, Operators	R*	•						See below.
9.4 Implement programmes from 9.3	EA, Operators	LAs	30*		•	•	•	•	2005	See below.

This issue is being progressed either through the West Midlands Region Air Quality Action Plan, or through the ongoing review of IPC Authorisations as required by statute. Where release of persistent toxic pollutants are or have been such as to justify wider environmental monitoring, involvement of the local authority is considered on a case-by-case basis.

Issue 10: Groundwater Pollution at Four Ashes near Wolverhampton

Objective: To define the extent of the pollution, its wider impact and the need for remediation

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
10.1 To define the manner and extent of the contamination to the underground aquifer.	Companies	EA	25	•	•					Good progress. The extent of the pollution has been well defined during several site investigations.
10.2 Completion of an R&D project on national attenuation and the application of the results.	EA, Bradford University	Companies	U	•	•					The R&D project is largely complete and the results have been assessed.
10.3 Agree and implement appropriate solution.	Companies, EA		U		•	•	•	•		The company has undertaken some remedial work and discussions are ongoing to agree further remediation that will bring about a permanent resolution to the problem.

Issue 11: Pesticide Contamination in Moors Gorse and Slitting Mill Public Water Supply Boreholes

Objective: To reduce pesticide levels, identify existing sources and prevent future contamination

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
11.1 Identify sources of contamination including possible modelling of the aquifer	SSW	EA	U	.	.					Following the installation of a pesticide treatment plant at Moors Gorse pumping station (which also treats water from Slitting Mill) and the coincidental reduction in pesticide levels, no further action is planned at present. See above.
11.2 Develop an agreed plan to prevent further contamination of water supply sources.	SSW, EA Land Owners		U		.	.				

Issue 12: The Environmental Impact of Public Water Supply Abstraction on the Rising Brook, Cannock

Objective: To protect minimum flows in the Rising Brook

Actions	Responsibility		Total Cost * (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
12.1 Agreement of Memorandum of Understanding with South Staffordshire Water	EA, SSW		3	•	•					Memorandum agreed and signed on 21/12/98
12.2 Investigations to establish: i) flow regime ii) engineering options	EA, SSW		R*		•					i) Tests started in December 1998 and were completed at the end of March 1999. ii) These are currently being considered following completion of i)
12.3 Variation of abstraction licence to allow compensation discharge	EA	SSW	R		•					This will be determined in 1999 and is dependent on the outcome of 12.2.
12.4 Provision of compensation flow	SSW		101		86	5	5	5		This will commence only after a decision and implementation of the work determined in 12.2 and 12.3

Issue 13: Sustainability of Groundwater Resources

Objective: To protect and reinstate baseflows to the rivers in the catchment

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
13.1 Scotch Brook – spot aquifer To work with STW Ltd to produce a MoU and undertake the following: <ul style="list-style-type: none"> - Hydrological modelling of the aquifer (joint funding) - Define water requirements within unit and consider the future demands - Promote use of alternative sources - Agree a long term monitoring regime of the model area 	EA	STW Ltd	R*	•	•	•	•	•	2005	Due to a change in priorities the work on this aquifer has been submitted under AMP3 and will now be completed by 2005.
	EA, STW Ltd		40			40				
	EA, STW Ltd		5		5					
	STW Ltd		U				•		2005	
	EA	STW Ltd	3		3					
13.2 River Blithe – Forsbrook aquifer <ul style="list-style-type: none"> - Modify existing public water supply licence to reflect existing use - Review baseline study of the area completed in 1995 and establish long term monitoring regime of site 	EA, SSW		R*			•				No action planned for this reporting year, however the tender documents for the project have been written.
	EA		10			10				

Issue 13: Continued

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
Consider if hydrogeological modelling of the aquifer is required (joint funding)	EA, SSW		U			*				The work on this aquifer was submitted under AMP 3 and will now be completed by 2005.
13.3 Groundslow Pools – Tittensor aquifer										
- Modify existing public water supply licence to allow some water to be used for compensation purposes	EA, STW Ltd		R*			*	*	*	2005	
- Set up monitoring regime for pools	EA		5		5					
- Liaise with Highways Agency to investigate the impact M6 drainage has on water resources of the pools.	EA, HA		U							This action has been put back to 99/00. The Agency is proposing to incorporate a staff gauge in 1999 to obtain background information on water levels.
13.4 River Sow/Burntwood Pools – Bishops Wood Aquifer										
- Investigate the hydrology of the catchment										No liaison to date. It is intended to commence this action in 1999.
i) baseline study of the area to confirm if the problem is caused by public water supply abstractions	EA		8		8					
ii) Investigate replacing weir structure at Burntwood Pools	EA	STW Ltd	4		4					Investigation completed. The weir structure will not be replaced.

Issue 13: Continued

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
- Modify existing public water supply licence (Jugbank and Burntwood) to allow some water to be used for compensation purposes.	EA	STW Ltd	R*							No action planned for this reporting year.
- Establish compensation management arrangements.	EA, STW Ltd		U							No action planned for this reporting year.

Issue 14: Abstraction Rights Exercised by British Waterways

Objective: To increase flows in the River Trent and River Penk during low flow conditions

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
Knypersley Reservoir										
14.1 Reinststate flow compensation structure to provide compensation to River Trent	BW	EA	U							No action planned for this reporting year.
Saredon Brook										
14.2 Agree optimum split in resources for the River Penk and canal feeder	EA, BW		R*							Agreement secured. A flow of 9 MI/d is retained on the Saredon Brook.
14.3 Repair and modify control structure	BW, EA		20 10	20 10						Work completed.
14.4 Assess the effectiveness of the modified structure	EA	BW			5					Ongoing.
14.5 Formalise agreement	EA, BW				5					The agreement has not been formalised in writing. It will be dependent on the assessment detailed in 14.4.

Issue 16: Biodiversity in Staffordshire Trent Valley

Objective: To protect rare and endangered animal and plant species and to promote diversity in flora and fauna

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
16.1 Support the completion of the Staffordshire Biodiversity Audit	SCC, SWT	EA	4*		4					Water dependent sites survey completed. Funding required from other partners before other sites can be surveyed.
16.2 Otters and Water Voles										
- Support Staffordshire Otter and Vole Project to carry out survey of species distribution and identify habitat enhancement requirements	EA, SWT	Other funding partners	15				10	5		Species distribution survey completed. Further surveys are expected to be carried out as part of a National Survey.
- Undertake programme of habitat enhancements identified above including the safeguarding of key water vole sites	EA	SWT, Landowners, other funding partners	U							No action planned for this reporting year.
16.3 Natterjack Toads										
- Safeguard the existing population through an agreed plan of action and utilise current Agency research advice to assist in the maintenance of the local population	SCC	EA	U							Work postponed and will now commence in 1999.

Issue 16: Continued

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
16.4 Crayfish										
- Undertake programme of surveys to assess distribution and status in areas not already surveyed	EA		3*	1	1	1				This work has been delayed and the survey widened to include the R Dove catchment. The additional survey sites have now been selected and field work will commence in May 1999. Out of 187 records on the Upper Trent database (1995-98), 134 (72%) from 30 sites are found within this LEAP area confirming it as a stronghold for the native crayfish within the R Trent basin.
- Respond to surveys, where appropriate, undertaking habitat improvements	EA	Landowners	10			•	•	•		No action planned for this reporting year.
16.5 Great Crested Newts										
- Establish a partnership to carry out baseline survey of newt distribution and identify protection requirements	EA	SWT, Others	15		5	5	5			Survey of Stoke on Trent distribution completed.
16.6 Black Poplar										
- Complete R & D project on the genetic diversity of the Shropshire Black Poplar	EA		25	•	•					The pilot project has been completed and the results indicate that the trees are 97% similar. A PhD project looking at the national picture has now commenced, funded by the Agency.
- Assess in collaboration with other project and, if appropriate, plant stock from the Shropshire population as part of the river corridor enhancement schemes	EA	LAs Landowners	U			•	•	•		No action planned for this reporting year.

Issue 16: Continued

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
- Include native Black Poplar in 50 appropriate planting schemes in Trent Valley	EA, SWT	LAs, Landowners Env. groups	U			•	•	•	2005	New action.
16.7 Invasive Plants										
- Undertake research pilot project to identify and eradicate invasive plants from the river bank and river corridor	EA	BTCV	15		•	•				Pilot project put back to 99/00 and will now be carried out on the River Cole in North Warwickshire ie out of this LEAP area.
- Consider a wider programme of control and eradication	EA	Landowners	U			•	•	•		No action planned for this reporting year.
16.8 Strategic Plan for the Trent Valley										
- Identify project partner funding sources and establish a project group	EA, LAs	SWT, Landowners, Env groups	R*	•						Completed.
- Agree location, scope, aims, objectives prior to appointment of consultants to develop draft strategic plan	LAs, EA, Land Owners, Wildlife groups		25		•	•				Completed.
- Incorporate strategic plan into minerals and local development plans in the form of supplementary guidance	EA, LAs		U				•	•		An initial report has been completed. The final report will be produced pending consideration of the interim report.

Issue 16: Continued

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
16.9 Wetland Habitats										
- Create 20 hectares of shallow pools through restoration of gravel pits	EA., SWT	Landowners Env groups	U			•	•	•	2005	New action.
- Increase total amount of wet woodland by 40 hectares						•	•	•	2005	New action.
- Create 50 hectares of reedbed including one over 20 hectares						•	•	•	2005	New action.
- Create 20 new non-recreational (fishing) ponds						•	•	•	2005	New action.
- Improve and enhance 20km of river corridor including re-instating former channel and backwater features						•	•	•	2005	New action.

Issue 17: Redevelopment along the banks of the Fowlea Brook and River Trent in Stoke on Trent

Objective: To improve water quality and the appearance and character of rivers and river corridors through development

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
<p>17.1 Develop a joint approach with the City of Stoke on Trent to include:</p> <ul style="list-style-type: none"> - A plan of improvements for the River Trent through Stoke on Trent - The development of planning policies as supplementary planning guidance for developers and land owners 	SoT	EA	U	•	•					Improvements will be pursued when the Stoke on Trent River Strategy (below) is incorporated into the Stoke on Trent City Plan.
	EA, SoT		5	•	•					The Agency was a major contributor to the production of supplementary planning guidance (referred to as the Stoke on Trent River Strategy) and provided financial support to assist the publication of the document.
										The strategy will be referred to in the City of Stoke on Trent City Plan when it is written.
17.2 Encourage developers to adopt appropriate enhancement measures through support for external funding bids and through awareness of environment good practice.	EA, SoT	Developers	U		•	•	•	•		Ongoing. Developers are referred to the SoT River Strategy when planning applications are submitted.

17.2 When Stoke on Trent review the City Plan and Newcastle Borough Council review their Local Plan, appropriate representations will be made re development along watercourses, and water quality improvements through reference to Sustainable Urban Drainage Techniques, standard pollution prevention measures etc.

Issue 18: Improving the Habitat on the Rivers Sow and Penk

Objective: To improve the ecology and fishery

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
18.1 Channel Habitat Diversity										
- Look at options to modify river channels ie extending the use of river narrowing, the creation of meanders and identification of appropriate sites. Contact with landowners	EA	Landowners	R	•	•					Work postponed due to lack of funds.
- Implement programme of improvements	EA	Landowners	25		•	•	•	•		
- Identify location for the development of spawning beds	EA		R	•						Work progressed to pre-construction stage, however the land owner after initially agreeing to the project, decided to refuse permission for the work to continue on his land.
- Implement programme of improvements	EA	Landowners	15*		•	•				No progress due to cessation of above work.
18.2 Bankside Habitat Diversity										
- Assess the extent of corridor degradation and identify appropriate measures and suitable locations for improvements	EA	Landowners	5		•					Work postponed due to lack of funds.
Options include:										
i) Pulling back river banks to create a transition zone										
ii) Tree and scrub planting										
iii) Creation of bankside reed areas and longer grass										

Issue 18: Continued

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
18.3 Weed Growth on the River Sow	- Implement programme of improvements	EA, Landowners	45*			30	5	5	5	An initial weedcutting experiment upstream of Doxey Marshes was not developed on a large scale. The Agency will review this action.
	- Assess the extent of the problem and the management requirements	EA	R							

Issue 20: Review of Flood Defences in Stafford

- Objective:**
- 1 To enhance the effectiveness of flood defences in Stafford
 - 2 To preserve and enhance the conservation and amenity value of the River Sow and Doxey and Tillington Marshes

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
20.1 Complete ongoing strategic study of the River Sow in Stafford	EA	IDD, SBC	26	26						The Agency has spent £5.3k so far on the Stafford Strategic Study. It is now estimated that the work will be completed in 99/00.
In the light of the above study:										
20.2 Appraise the need for uprating the existing flood defences	EA		R*							Delayed pending completion of 20.1 (see above comment).
20.3 Carry out remedial works required in flood defence asset survey and for the improvement in water levels in Doxey Marshes	EA, SSC, SWT, IDD		200*						200	Delayed pending completion of 20.1.
20.4 Identify properties within flood risk areas in Stafford town centre and offer Direct Flood Warnings to those at risk	EA		R							New action.

Issue 21: Flooding from the Rising Brook, Stafford

Objective: To provide flood defences to alleviate flooding of property by the Rising Brook

Actions		Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
		Lead	Other								
21.1	Complete ongoing mathematical modelling exercise to determine flood levels	EA		10	10						This work has been delayed. £1.8k was spent in 1998/99 and it is anticipated that the remaining work will be completed in this financial year (99/00).
21.2	Undertake capital or revenue works to provide flood protection	EA	Landowners	200	20	180				200	Work delayed pending completion of 21.1.

Issue 22: Meeting Making Waste Work Targets

Objective: To reduce the amount of waste produced in Staffordshire Trent Valley, to make best use of the waste that is produced, to minimise the risks of immediate and future environmental pollution and harm to human health and to increase the proportion of waste managed through reuse, recycling, waste to energy and composting

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
22.1 Undertake a pilot project with Staffordshire local authorities to produce a good practice guide for householders	EA, LAs		25*		•					No progress. Funding not secured. Intention to pursue in 1999.
22.2 Work closely with local authority recycling officers to identify joint initiatives and working arrangements	EA, LAs		R*	•	•					Ongoing. Regular liaison between EA and Staffordshire Waste Management Group to exchange information/ideas. Agency staff also contribute to LA21 groups and meetings of local authority Environmental Co-ordinators.
22.3 Monitor and report on local household, industrial and commercial recycling figures relating to the area and historical data	Audit Commission, LAs, EA		10*		•	•	•	•		Ongoing. Information obtained is shared by all 3 lead bodies.

Issue 23: Quantity of Ceramic Waste Arising in the Area

Objective: To avoid, eliminate or reduce waste at its source and to reduce the hazard of waste arising from the ceramics industry

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
23.1 Develop & promote the Staffordshire Trent Valley Waste Minimisation Club in the area	EA	Local Business	5	•	•					Completed. In 1999 the Agency may assist with the creation of one other waste minimisation club in Staffordshire. The Agency is also working with Staffordshire Business Environment Network regarding waste minimisation.
23.2 Joint working with ETBPP, CERAM and the BCC to develop good practice and to share innovation and technical advance in waste minimisation	EA, CERAM, BCC, ETBPP		10		•	•	•			<p>The Agency has circulated 120 copies of the Environmental Service Directory to companies that are members of BCC.</p> <p>18/08/98 Agency held a breakfast meeting at BCC to discuss improving environmental performance in the ceramics industry. This was well attended and the proceedings were circulated to companies to promote work discussed.</p> <p>12/02/99 Agency staff gave a presentation to CERAM on Waste Recycling and the Law.</p> <p>March 99 Agency gave a talk to 45 people from BCC on Waste Minimisation and packaging. The Agency is also promoting a waste exchange scheme called "West Midland Waste Matchers".</p>
23.3 Help establish Trading Estate Environment Best Practice Schemes with BiE and Staffs Uni that are specifically targeted at SMEs.	EA, BiE, Staffs Uni	LAs, Local Business	R*	•	•					A draft Best Practises Guide has been produced by the Agency, BiE and Stafford University which may be adopted nationally. The guide has been trialled on a trading estate in Birmingham and further trials may be carried out in Staffordshire in 1999.

Issue 24: Poplars Landfill Site, Cannock

Objective: To put in place a five year programme of improvement to tackle public concerns about birds, flies, litter, smell, dust and visual amenity

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
24.1 Update of the working plan	Biffa, EA		R*		*					The working plan and licence have been modified with regards to the composting/recycling facility on site and as a result odours, dust, flies etc are currently not a problem from these activities.
24.2 Modification of the licence	EA		R		*					The Agency is discussing further updates to the working plan/licence with the site operator.
24.3 Annual residents liaison meeting	EA, Biffa	SCC, SDC	R*	*	*	*				Regular meetings held (average 2/yr).
24.4 Investigation of combustion by-products from the gas flare	EA, Biffa	SCC, SDC	15			*				No action planned for this reporting year.
24.5 Investigation of the rising groundwater beneath site	Biffa	EA	10*			*				No action planned for this reporting year.
24.6 Develop an improved leachate management system	Biffa	EA	U		*					Discussions with site operator have taken place with a view to implementation of a strategy to reduce leachate levels within the site to licensed conditions.
24.7 Develop a new restoration strategy to minimise adverse environmental effects and provide beneficial afteruse of the site	Biffa	EA	U		*					Work has commenced and discussions will continue through 1999.

Issue 25: Flooding from the Fowlea Brook at Liverpool Road, Stoke on Trent

Objective: To reduce flooding and prevent the build up of debris at Leason Street

Actions		Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
		Lead	Other								
25.1	Carry out surface water sewer replacement scheme in Liverpool Road area	STW Ltd	SoF	100	10	90					The works were completed by Stoke County Council and Severn Trent Water Ltd in April 1998. The Agency has constructed a new trash screen at Liverpool Road that will substantially reduce the build up of debris at Leason Street. Provided maintenance is carried out on a regular basis the provision of a new screen should make a significant difference in maintaining lower water levels during periods of heavy rainfall.
25.2	Carry out flood alleviation measures on the Fowlea Brook at Liverpool Road, including a flood defence structure and new elongated two-tier debris screen with inclined and horizontal components to minimise the risk of trapped debris creating a blockage	EA		20	20						

Issue 26: Surface Water Flooding at Brindley Ford, Stoke on Trent from Brown Lees Open Cast Coal Site

Objective: To control site run-off by the introduction of surface water detention areas to reduce the risk of local flooding

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
26.1 Staffordshire County Council as Minerals Authority will seek to enforce the Coal Authority to fulfil planning conditions relating to aftercare of restored areas	SCC, CA		U	.	.					Staffordshire CC are awaiting more details (re drainage) from the Coal Authority. Off site works may be required and SCC are in discussion with the CA re finishing the project.
26.2 The Environment Agency will advise and approve landscape surface water detention areas to be implemented on Brown Lees open cast site to alleviate downstream flooding at Brindley Ford village	EA	SCC	5	.	.					A scheme to balance flows from the site has been designed but work has not yet commenced. Additional hydraulic modelling work has been undertaken by WS Atkins working on behalf of the Coal Authority. Further work by WS Atkins will be undertaken before works are implemented on site.

Issue 27: Fisheries Management of Municipal Park Pools in Stoke-on-Trent and Newcastle under Lyme

Objective: To reduce fish mortalities in municipal park pools by improving fisheries and pond management

Actions	Responsibility		Total Cost (£K)	97/98	98/99	99/00	00/01	01/02	Future	Progress
	Lead	Other								
27.1 Undertake a pilot project to survey one or two pools with characteristic problems	EA	SoT	5	•	•					Fish populations in several pools in Stoke on Trent have been manipulated to reduce the density of plankton grazers in order to control algal levels. Project on hold due to re-organisation of council leisure staff structures.
27.2 Develop and publish general guidelines for fisheries management of park pools for use by local authorities and others	EA		10		•					Preliminary report on the use of straw in Birmingham park pools has been produced. Further data required to produce a comprehensive management plan.

5.0 Future Reviews

We will review progress again next year and aim to publish our second Annual Review of the Staffordshire Trent Valley LEAP in May 2000.

APPENDIX 1

Current status of Local Authority Development Plans in the Staffordshire Trent Valley Area

Local Authority	Development Plan and Current Status
Shropshire County Council	Shropshire County Structure Plan 1989-2006 - operative January 1993. Structure Plan Review 1996-2011 Deposit Draft 1999. Shropshire Minerals Local Plan - Public Inquiry June 1997, Proposed Modifications published October 1998. Shropshire Waste Local Plan - Consultation Draft in preparation.
Bridgnorth District Council	Local Plan being reviewed to roll plan forward to 2011. Deposit version awaiting Structure Plan.
Staffordshire County Council	Replacement Staffordshire Structure Plan 1986-2001 operative April 1991. Revised Structure Plan produced jointly by Staffordshire County Council and Stoke-on-Trent City Council entitled Staffordshire and Stoke-on-Trent Structure Plan 1996-2011. Objections to Deposit Draft currently being considered. Staffordshire and Stoke-on-Trent Minerals Local Plan - post inquiry proposed modifications expected for consultation Summer 1999. Staffordshire Aggregates Local Plan adopted 1996 - will be subsumed into Minerals Local Plan when adopted. Staffordshire and Stoke-on-Trent Waste Local Plan - deposit draft expected end of 1999.
City of Stoke on Trent	City Plan 2001 Adopted 1993. Review awaiting Structure Plan.
Wolverhampton Metropolitan BC	Wolverhampton Unitary Development Plan adopted 1993.
Walsall Metropolitan BC	Walsall Unitary Development Plan adopted 1995. Review currently in progress with Consultation Plan due Autumn 1999.
Newcastle-under-Lyme Borough Council	Newcastle-under-Lyme Local Plan adopted 1995.
Staffordshire Moorlands District Council	Staffordshire Moorlands Local Plan adopted September 1998.
Stafford Borough Council	Stafford Local Plan adopted 1998.
South Staffordshire District Council	South Staffordshire Local Plan adopted 1996.
Cannock Chase Council	Cannock Chase Local Plan adopted 1997.
Borough of East Staffordshire	Borough of East Staffordshire Local Plan - Public Inquiry complete, Proposed Modifications published June 1996
Lichfield District Council	Lichfield District Local Plan adopted 1998.

APPENDIX 2

Pollution Incidents by type and cause – February 1998 – March 1999

		Category			Cum Total
		1	2	3	
TYPE	Agriculture	0	2	43	45
	Oil	1	6	106	113
	Chemical	1	5	29	35
	Sewage	0	0	128	128
	Other	1	3	108	112
	Total	3	16	414	433
CAUSE	Industry & Commercial (inc mining/restaurants)	2	9	70	81
	Agriculture	0	1	39	40
	Water utility Company	0	0	120	120
	Other	1	6	185	192
	Total	1	7	414	433

Category 1 – Major incident, Category 2 – Significant incident, Category 3 – Minor incident

No of unsubstantiated incidents = 97
(Cat 4)

