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ENVIRONMENT
AGENCY

SECOND ANNUAL REVIEW
OF THE
AXE & LIM
CATCHMENT MANAGEMENT PLAN
(1999)



SOUTH WEST REGION

RIVERS AXE & LIM CATCHMENT MANAGEMENT PLAN - 2ND ANNUAL REVIEW

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Key to Tables:

n/a	Costs not attributed to the Agency
u/k	Costs to Agency are unknown
<1k	Costs to Agency will be under £1000
pa	Per Annum
✓	Year when action due to take place

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April 1999



CATCHMENT VISION

Our vision for the Axe & Lim Catchment is of a healthy and diverse environment, managed in an environmentally sustainable way, balancing the needs of all users.

We look forward to a future for the catchment where there is:

- achievement of environmentally sustainable use of the water resource
- maintenance and, where appropriate, enhancement of biodiversity, particularly of aquatic features, habitats and species
- conservation of features of archaeological and historic interest within the aquatic environment and associated land
- continuing improvement of existing discharges to meet the most appropriate standards
- development of sustainable agriculture, aquaculture and forestry which reduces the risk of diffuse pollution and improves the physical habitat of the river system and wetlands for wildlife
- increasing enjoyment and appreciation of the water environment
- minimal risk to people and property from flooding
- maintenance of the natural hydrological cycle, including natural river and wetland functions and processes
- achievement of sustainable salmonid, freshwater, sea and shellfisheries within the catchment

The achievement of this vision will require close co-operation between many organisations and individuals. We recognise the importance of establishing links with local communities and representatives, and in particular in working with the local authorities, environmental groups and other interested organisations. The Axe & Lim Catchment Management Plan provides an important focus for this partnership.

Introduction

The Environment Agency

Our Vision is:

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

Our aims are:

- to achieve major and continuous improvements in the quality of air, land and water
- to encourage the conservation of natural resources, animals and plants
- to make the most of pollution control and river-basin management
- to provide effective defence and warning systems to protect people and property against flooding from rivers and the sea
- to reduce the amount of waste by encouraging people to re-use and recycle their waste
- to improve standards of waste disposal
- to manage water resources to achieve the proper balance between the country's needs and the environment
- to work with other organisations to reclaim contaminated land
- to improve and develop salmon and freshwater fisheries
- to conserve and improve river navigation
- to tell people about environmental issues by educating and informing
- to set priorities and work out solutions that society can afford.

We will do this by:

- being open and consulting others about our work;
- basing our decisions around sound science and research;
- valuing and developing our employees; and
- being efficient and businesslike in all we do.

The Environment Agency has a wide range of duties and powers relating to different aspects of environmental management. We are required and guided by Government to use these duties and powers in order to help achieve the objective of sustainable development. The Brundtland Commission defined sustainable development *"as development that meets the needs of the present without compromising the ability of future generations to meet their own needs"*.

At the heart of sustainable development is the integration of human needs and the environment within which we live. Indeed, the creation of the Agency itself was in part a recognition of the need to take a more integrated and longer-term view of

environmental management at a national level. We therefore have to reflect this in the way we work and in the decisions we make.

Taking a long-term perspective will require us to anticipate risks and encourage precaution, particularly where impacts on the environment may have long-term effects, or when the effects are not reversible. We must also develop our role to educate and inform society as a whole, as well as carrying out our prevention and enforcement activities, in order to ensure continuing protection and enhancement of the environment.

One of the key outcomes of the United Nations "Earth Summit" held in Rio de Janeiro in 1992 was agreement by governments that, in order to solve global environmental problems, local action is crucial: we must all therefore think globally but act locally.

Catchment Management Plans

For our part we are committed to a programme of Catchment Management Plans (CMP) and Local Environment Agency Plans (LEAPs) in order to produce a local agenda of integrated action for environmental improvement. These will also allow us to deploy our resources to best effect and optimise benefit for the local environment.

CMPs help us to identify and assess, prioritise and solve local environmental issues related to our functions, taking into account the views of our local customers. The outcome of the process is a local programme of integrated action for environmental improvement in order to optimise benefit for the local environment.

The process involves several stages which began with the publication of the Consultation Report. The publication of the Consultation Report for the Rivers Axe & Lim Catchment marked the start of a three month period of formal consultation which enabled external organisations and the general public to work with us in planning the future of the local environment. At the end of this 3 month period a summary of the responses was published.

Following on from the Consultation Report the Rivers Axe & Lim CMP Action Plan was produced which took into account the results of the consultation and highlighted various actions for the catchment together with costs and benefits, identifying timescales and various partner organisations. This document has been reviewed on an annual basis.

Annual Review

We monitor implementation of the CMP and report on progress in a published Annual Review. The Annual Review will also identify any additional actions needed to maintain progress in light of any changes in the Catchment area and also whether any actions need removing or amending where they are no longer appropriate.

The Catchment Steering Group

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

Rivers Axe & Lim Catchment Steering Group

Name	Representing
Mr J Boulton	Axe Fly Fishers
Major General D H Braggins	Devon Fisheries Advisory Committee
Ms C Brewster	East Devon District Council
Mr P R Burrough	Local Farmers
Mr N Butler	East Devon Heritage Coast Service
Mr D Campbell	Axe Vale & District Conservation Society
Mr C Pulteney	English Nature
Mr T C Frost	NFU
Mr D Minchin	Riparian Owner
Mr B Newbery	NFU
Mr C G Pole-Carew	Riparian Owner
Mrs S Poupard	Lyme Regis Town Council
Mr B F W Terry	Axe Fly Fishers
Commander C B Tuke	Axe Vale Rivers Association
Mr K Whetlor	Lyme Regis Environmental Group
Mr J Williams	Taunton Fly Fishing Club
Mr M Williams	South West Water Ltd.
Ms D Eckhart	Blackdown Hills AONB

Review of Progress

The following pages outline updates on the various issues, together with the relevant actions as set out in the Rivers Axe & Lim CMP Action Plan (January 1997).

A summary of progress is given for each action, together with target dates for future work if applicable.

Future Reviews

We will not be reviewing this plan again. It is our intention to produce a new Local Environment Agency Plan for the catchment.

1997 Compliance with River Quality Objectives

The 1997 RE compliance assessment, based on three years of data collected between 1995 and 1997, is shown on Map 2.

A comparison with the 1995 RE compliance assessment used in the Axe and Lim Action Plan (January 1997) shows that RQO compliance has been achieved in four previously failing stretches: River Coly from Heathayne Farm to Normal tidal Limit (NTL), Umborne Brook from Triffords Farm to Coly confluence, Offwell Brook from source to Offwell and the Bruckland Stream from source to Axe confluence. In addition the River Yarty from Beckford Bridge to the Axe confluence was compliant with its LTRQO based on 1997 RE classification data.

However a comparison of water quality based on the 1997 RE classification and the 1995 RE compliance assessment used in the Axe and Lim Action Plan indicates water quality in a single stretch has deteriorated resulting in an RQO failure: River Yarty from Newhaven to Beckford Bridge. This comparison also shows the top stretch of the Yarty now fails its Long Term RQO. Much of the area is affected by agricultural activities and the Agency is working with a number of organisations to identify a strategy that will address these problems. This strategy will be further developed in the forthcoming Axe and Lim LEAP.

REVIEW OF PROGRESS

1. RIVER QUALITY OBJECTIVES

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Significant failure of RQO in River Axe: A3066 Bridge Mosterton – Seaborough (RE2) (1997 Compliance assesment) (See Issue 1c)									
1ai	Conduct investigation work and enforce pollution control legislation where necessary.	Agency	✓	-	-	-	-	3k	Work to resolve problems of agricultural pollution is ongoing. The River Axe catchment has been put forward for a DIY Farm Waste Management campaign in 1999/2000, which will be funded by MAFF.
1aii	Work with others to target this river stretch to promote the uptake of less intensive agricultural schemes, such as Countryside Stewardship.	Agency, MAFF CoCo, ADAS, Farmers	-	✓	✓	✓	✓	u/k	Progress on this action is ongoing.
Issue: Marginal Failure of RQO at Offwell Brook – Source of Offwell (RE1). The 1997 compliance assessment shows this stretch now complies with its objective.									
1bi	Improve maintenance at Offwell STW.	SWWL	✓	-	-	-	-	n/a	This action has been completed and the stretch now complies with its current objectives.
1bii	Review descriptive consent.	Agency	✓	-	-	-	-	u/k	As above for action 1bi.
Issue: Marginal failure at Umborne Brook – Triffords Farm to Coly Confluence (RE2 2000).). The 1997 compliance assessment shows this stretch now complies with its objective.									
1biii	Liaise with owner to improve discharge at Wilmington Trout Farm	Agency, Owner	✓	✓	-	-	-	<1k	This action has been completed and the stretch now complies with its current objective.
1biv	Carry out improvements to STW at Shute.	EDDC	-	✓	-	-	-	n/a	As above for action 1biii
Issue: Marginal failure of RQO at Bruckland Stream (RE2). The 1997 compliance assessment shows this stretch now complies with its objective.									
1bv	Conduct farm visits.	Agency, Farmers, Residents	-	✓	-	-	-	3k	Farm visits were conducted in early 1998. Some minor problems were found and resolved. The action is now completed.
Issue: Marginal failure of RQO at River Coly – Heathayne Farm to normal tidal limit (RE2 2000). The 1997 compliance assessment shows this stretch now complies with its objective.									
1bvi	Farm visits and catchment checks.	Agency, Farmers	✓	✓	✓	-	-	u/k	This action has been completed and the stretch now complies with its current objective.
Issue: Failure to meet long term RQO's. The 1997 compliance assessment shows the Clapton Stream and the Blackwater River now comply with their long term objectives. However, the Drimpton Stream, Umborne Brook: Source- Triffords Farm, River Yarty: Source – Beckford Bridge (2 stretches) and the River Axe: A3066 Bridge Mosterton - Seaborough fall to meet their long-term objectives.									
1ci	Conduct farm visits.	Agency	-	✓	-	✓	-	4k	There was no campaign targetting farms in 1998 because the 1996 compliance assessment used in the 1 st Annual Review showed that only one stretch, the River Axe from Mosterton – Seaborough, failed to meet its long term objective (see 1a). The most likely cause of the failures recorded in 1997 is agricultural pollution. Problems have been identified with overstocking,

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
									lack of clean water separation, runoff from uncovered yards and poor spraying and spreading practices. The River Axe catchment has been put forward for a DIY Farm Waste Management Campaign in 1999/2000 which will be funded by MAFF
1cii	Work with others to target these river stretches to promote the uptake of schemes that encourage less intensive land use, such as Countryside Stewardship.	Agency, Farmers, MAFF, CoCo, ADAS	-	✓	✓	✓	✓	u/k	Progress on this action is ongoing.

2. INTERNATIONAL COMMITMENTS TO WATER QUALITY

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Nutrient status of the Axe Estuary									
2ai	Collect and analyse chemical and biological monitoring data to determine trophic status of the estuary and source of nutrient inputs and seek improvements if appropriate.	Agency	✓	✓	-	-	-	7k	The action has been completed, as reported in the 1st Annual Review. A recommendation was made to investigate freshwater inputs to the estuary (see 9aiv).

3. WATER RESOURCES

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Forecast deficits in Wimbleball Public Water Supply Zone									
3ai	Complete and operate Wimbleball Pumped Storage Scheme Operational Management Strategy.	Agency, SWWL	✓	-	-	-	-	2k	The Pumped storage scheme is now operational. It has been operated only once to date, in February/March 1997.
Issue: Low flows in the Umborne Brook									
3bi	Complete calibration work to enable precise gauging of abstraction.		✓	-	-	-	-	<1k	This work is ongoing, and due for completion in 2000.

4. ARCHAEOLOGY AND THE HISTORIC ENVIRONMENT

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Lack of archaeological information in a useable format									
4ai	Discuss options for a rapid archaeological assessment of the whole catchment with potential partners.	DCC, Agency, EDDC, DAS, AVCS	✓	-	-	-	-	<1k	Due to re-organisations at Devon County Council, this action was not progressed. The matter will be taken up during early 1999.
Issue: Potential loss of historic pill boxes									
4bi	Sites need to be properly assessed and recorded and where necessary protected.	Defence of Britain Project	✓	-	-	-	-	n/a	Sites have now been included within the Sites of Monuments Register for Devon, which includes pill boxes and coastal defences. The Defence of Britain project is due to finish in April 2000.

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Potential obstruction to flow from undermined pill boxes									
4ci	Actions dependant on assessment of 4bi.	Agency	-	✓	-	-	-	u/k	DCC now has a list of all sites. Agency will obtain a list of sites within the catchment from DCC and will assess the impact on flood risks.
Issue: Concern over loss of amenity at Middle Mill Weir									
4di	Examine feasibility of reinstating leat at Middle Mill Weir, taking account of environmental and flood defence considerations.	Lyme Regis TC, Agency	✓	-	-	-	-	<1k	In 1997 Lyme Regis Town Council looked into the possibility of bridging a collapsed section of the leat. This would enable the existing leat flows (from surface runoff) to continue further along the leat, improving its amenity value. Although no progress has been made to date, the Town Council does intend to carry out the work when time and materials become available.

5. CONSERVATION OF THE NATURAL ENVIRONMENT

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: General threat to key habitats and species in the catchment as a whole									
Sai	Continue development and implementation of the County BAP.	DWT, Agency, EN, RHIER, LAs	✓	✓	✓	-	✓	5k (1997)	The Devon BAP ¹ was published in July 1998.
Saii	Develop Biodiversity initiatives, eg. County Nature Conservation Strategy, Regional Habitat and Species Action Plans.	DCC, RSPB, EN, Wildlife Trusts, Agency, LAs	✓	✓	✓	✓	✓	2k pa	The Agency continues in its involvement with consultations on plans and strategies.
Saiii	Confirm actions required relating to existing authorisations to comply with EC Habitats Directive ² .	Agency, EN	✓	✓	✓	✓	✓	u/k	The document "Guidance for the review of Environment Agency permissions" was produced jointly by English Nature and the Agency in January 1997. The Agency will work to identify permissions which authorise activities that are having a significant effect on a European site. Further guidance will follow on how to deal with permissions which are believed to be having an adverse effect on the integrity of any European site.
Issue: Spring-line mire habitat and associated species in decline and under threat									
Sbi	Enter 80% of catchment resource into protective management scheme by 2005	DWT, ADAS, ESA, Officers, EN	-	-	-	-	-	n/a	Sites continue to be entered into protective management.
Sbii	Produce list of priority sites for restoration. (Target: no further loss of existing resource - restore 20 ha of mire habitat by 2005)	DWT, EN, Agency	✓	-	-	-	-	<1k	The Agency is funding management of work at two sites within the Blackdown Hills, at Bucehayes Common and Yarty Moor.
Sbiii	Implement and promote actions from County BAP for marsh fritillary. (Target: maintain existing marsh	Butterfly Cons Soc DWT, Agency,	✓	✓	✓	✓	✓	u/k	The marsh fritillary will benefit from work at Bucehayes Common and Yarty Moor. (See Sbii).

No.	Action	Lead / Others	97	98	99	00	01	Cost	Progress
	fritillary populations)	EN, Blackdown Hills							
5biv	Implement and promote actions from County BAP for curlew. (Target: increase breeding curlew numbers by 25% by 2010)	DWT, Blackdown Hills, EN	✓	✓	✓	✓	✓	n/a	The curlew will benefit from work at Bucehayes Common and Yarty Moor. (See 5bii).
Issue: Loss of wet woodland (carr) and bankside trees									
Sci	Achieve better understanding of extent and value of existing resources. (Target: create 5 ha of wet woodland by 2005)	DWT, Agency	-	✓	-	-	-	2k	There has been no further progress from the 1st Annual Review. The Habitat Action Plan is now contained within the Devon BAP.
Scii	Liaise with landowners and encourage sensitive farming practices including the restriction of stock access to sites of potential bankside tree regeneration.	Blackdown Hills, Agency	-	-	✓	✓	-	u/k	A fencing project has been completed at Wadbrook Farm, where willow spiling / hurdles have been used to protect eroding river banks. An open day was held during November 1998.
Sciii	Identify areas of river valleys where tree planting will not increase flood risk, and encourage planting in those areas.	Agency	✓	✓	✓	✓	✓	2k pa	There has been no progress on this action to date.
Sciv	Continue to monitor extent of alder root disease.	Agency	✓	✓	✓	✓	✓	<1k pa	The disease is extensive throughout the catchment. Information from the Forestry Authority shows that trees with severe crown symptoms may recover in subsequent years. Coppicing may help infected trees to recover. A new Forestry Authority Information Note is available, dated July 1998.
Issue: Spread of invasive plant species									
Sdi	Monitor extent and spread of invasive alien species; Himalayan balsam, Japanese Knotweed, Giant hogweed.	Agency, Riparian Owners	✓	✓	✓	✓	✓	<1k pa	There has been little progress to date. We would welcome contributions from riparian owners and fishing associations, particularly for Giant Hogweed.
Sdii	Control invasive species on Agency owned or managed land.	Agency	-	✓	-	-	-	u/k	No sites have been identified.
Sdiii	Promote control of invasive species by others, especially on land of conservation value or where rights of way exist or are developed.	Agency, DCC, EDHCS, EDD, Parish, NT, BTCV	✓	✓	✓	✓	✓	<1k pa	This action is ongoing, and is promoted wherever possible, as part of the routine work of the Agency.
Issue: Loss of marginal habitats									
Sei	Encourage riparian owners to provide suitable conditions for development of more extensive marginal vegetation.	Agency	✓	✓	✓	✓	✓	<1k pa	An open day was held at the Wadbrook site on the River Axe during November, where bankside fencing and bank protection techniques were promoted.
Issue: Wildlife value of floodplain habitats restricted by agricultural practices									
Sfi	Produce list of priority sites for management (Target: maintain existing area of floodplain habitat with high conservation value - increase by 20 ha floodplain)	DWT, Agency, EN, EDHCS, Other, Wildlife	✓	✓	-	-	-	<1k	No priority sites have been identified. (See Issue 5fii).

No.	Action	Lead / Others	97	98	99	00	01	Cost	Progress
	grassland managed for conservation by 2000 – enhance value of 10 ha of degraded grazing marsh by better management of water levels by 2000 – increase numbers of breeding waders by 20% by 2005).	Trusts, RSPB							
Sfii	Implement and promote actions from County BAP to improve conservation value of floodplains, grazing marsh and associated species.	Agency, DWT, EN, EDHCS, RSPB	✓	✓	✓	✓	✓	u/k	Two sites have now been entered into Countryside Stewardship on either side of the Axe Estuary. Financial restraints have lead to some CS applications being rejected.
Sfiii	Develop a water level management plan for the grazing marshes adjacent to the Axe Estuary to improve their conservation value.	EN, Agency, EDDC, DWT, EDHCS, Occupiers	-	✓	-	-	-	5k	No formal plan has been started.
Sfiv	Seek to influence levels of payment and priorities for agri-environment schemes to encourage wider uptake.	Agency, MAFF, EN	✓	✓	✓	✓	✓	<1k pa	The Agency is involved with the Blackdown Hills ESA review for 1999 - 2004, and has commented extensively with regard to the tier structure for payment and protection of riparian habitats.
Issue: Damage and disturbance to estuarine habitats and species									
Sgi	Ensure public access arrangements and management to banks, etc. do not adversely affect estuary through increased disturbance. (Targets: maintain and seek to increase numbers of waders and wildfowl using the estuary - actively manage all reedbeds >.5 ha for wildlife - create additional reedbed site >.5 ha in lower River Axe Valley by 2000)	Agency, EDHCS	✓	✓	✓	✓	✓	<1k	There has been no further progress from the 1st Annual Review.
Sgii	Promote and implement, as appropriate, actions from the County BAP for reedbeds.	DWT, Agency, Land-owners	✓	✓	✓	✓	✓	<1k	Small areas of reedbeds are included within areas under Countryside Stewardship adjacent to the Axe Estuary.
Sgiii	Investigate possibility of saltmarsh creation associated with MAFF habitat scheme.	Agency, ADAS, EDHCS	✓	✓	-	-	-	<1k	No appropriate sites have been identified to date.
Issue: Lack of public awareness of the high value and treats to marine habitats									
Shi	Examine possibility of producing, with others, - interpretative material (such as information boards and leaflets) highlighting value of marine habitats and species.	EDHCS, EDDC, Agency	-	✓	-	-	-	<1k	There has been no further progress from the 1st Annual Review.
Shii	Work with Sea Fisheries Committee to minimise damage to valuable habitats and features by inappropriate fishing methods.	DSFC, Agency	-	✓	-	-	-	<1k	The Devon Wildlife Trust undertook a survey of the Lyme Bay Reefs during 1998. A Report on its findings and implications will be available during Spring 1999.

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Failure of otters to recolonise the catchment in expected numbers									
Si i	Promote and implement, as appropriate, otter action plan from County BAP (includes survey work, habitat restoration, investigations into prey availability, research into levels of contaminants, etc) (Targets: restore breeding otters to whole of catchment 2005 - ensure road casualties are minimised by appropriate preventive measures)	DWT, Agency, EDDC, Volunteers, Riparian Owners, others.	✓	✓	✓	✓	✓	2k pa	Operation Otter is progressing well, and surveying 200 sites quarterly throughout Devon. Post mortems on road casualties also continue.
Issue: Decline of water voles									
Sji	Promote and implement, as appropriate, water vole action plan from County BAP (includes survey, improvement of riparian habitat, awareness raising, monitoring of mink numbers, etc.) (Targets: identify current distribution by 1997 - achieve return to 1970's range by 2010 - restore 2km of suitable habitat by 2005)	DWT, Agency, EDDC, Volunteers, Riparian Owners, others.	✓	✓	✓	✓	✓	2k pa	No work has been done within the catchment, although the Agency is funding research work to look at the interrelationships between Otters, Mink and Water Vole. Mink are believed to have played a major role in the decline of Water Vole. Otters may play a role in displacing mink as they colonise new areas. The "Water Vole Handbook" has recently been produced by the Agency, English Nature, and the Wildlife Conservation Research Unit.
Issue: Loss of nesting sites for riparian birds									
Ski	Support county-wide survey of sand martin nest sites.	DBWPS, Agency, RSPB	✓	-	-	-	-	u/k	The survey is complete, and awaiting the findings of the sand martin distribution. Additional records would be welcomed.
Skii	Survey Rivers Axe and Lim to identify kingfisher nest sites.	DBWPS, Agency, RSPB	-	✓	-	-	-	u/k	The survey indicated a few probable breeding pairs within the catchment. We will seek to protect existing and potential sites as part of our routine duties, with a particular emphasis on any river bank works.
Issue: Loss of earth science features									
Sli	Support the designation of Lyme Bay coastline as a World Heritage Site.	Agency, EN, LAs	✓	✓	-	-	-	<1k pa	The Dorset and East Devon Coast has been included within the list submitted to the Department of Culture, Media and Sports. English Nature are supporting the bid for inclusion on the list to UNESCO. The Final list is anticipated in 1999, although designation may take up to 10 years.
Slii	Raise public awareness of importance of earth science and promote code of practice for fossil collection.	County RIGs Grp, LAs, Agency, EN	✓	✓	✓	✓	✓	<1k pa	There has been no progress to date.
Sliii	Promote measures to prevent loss of earth science sites and features in rivers and	Agency	✓	✓	✓	✓	✓	u/k	The River Axe will be notified as a SSSI, part of which for its geomorphical importance. We will

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
	floodplains.								also work to protect features through our routine work.
5I iv	Support programme of identification and documentation of County Geological Sites.	County RIGs Grp, LAs, Agency, EN	✓	✓	✓	✓	✓	<1k pa	Country RIGS have been identified within East Devon, although none are within this catchment. There is no information yet for Dorset and Somerset.
5Iv	Seek to develop schemes that reduce the impact on features by encouraging landowners to use sympathetic management practices, or by allowing geomorphological processes to proceed.	Agency, MAFF, DCC	✓	✓	-	-	-	u/k	We continue to advise landowners, and have developed a demonstration site at Wadbrook on the River Axe, which shows soft engineering techniques.

6. RECREATION

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Public access to the water environment often difficult especially for the less able									
6ai	Work with others to provide and maintain good access, whilst protecting the wildlife and the interests of landowners.	Agency, EDHCS, LAs, Blackdown Hills	✓	✓	✓	✓	✓	u/k	There has been no further progress from the 1 st Annual Review.

7. REVIEW OF FLOOD DEFENCE OPERATIONS

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Potentially inadequate flood warning action									
7ai	Complete review of flood warning standards of service and where necessary improve flood warning at some locations.		✓	✓	✓	-	-	5k	The Flood Warning Levels of Service Study (FWLOS) is currently being carried out and scheduled for completion by August 1999. This study will allow assesment of the current flood warning service provided in the Axe and Lim catchments and establish a programme for improvements where necessary, taking into account priorities across the region.
Issue: Planning and flood risk									
7bi	Provide information (S105 Surveys) to planning authorities to prevent inappropriate development in the floodplain.	Agency, Planning Auths	✓	-	-	-	-	5k	S105 Survey Data was provided to East Devon District Council on the 20 November 1997.

8. FISHERIES

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Decline in runs of salmon									
8ai	Continue stocking programme	Agency, Anglers	✓	✓	-	-	-	10k	A smolt rearing pond, established in the Axe catchment, is currently

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
									stocked with approximately 10k juvenile salmon originating from the Exe catchment. Approx 30k ova have been laid down in the Welsh region hatchery for stocking out next year.
8aii	Carry out habitat improvements as necessary including gravel rehabilitation and trash dam removal.	Agency, Riparian Owners, Anglers	✓	✓	✓	✓	✓	1k	Annual gravel rehabilitation work was undertaken at sites during October 1998 using chisel plough on the main Axe & Yarty, and some high pressure pump works on smaller watercourses.
8aiii	Ensure installation and operation of screens to prevent fish escapement and smolt entrapment at fish farms and other abstraction points.	Abstractors, Fish Farmers, Agency	✓	✓	-	-	-	<1k	Individual site assessments are to be carried out in the next few months.
Issue: Need to develop national strategy for the management of salmon									
8bi	Develop Salmon Action Plan for the River Axe in line with national guidance	Agency	✓	✓	-	-	-	5k	The Salmon Action Plan for the River Axe is currently being prepared. The draft document is expected in 1999/2000.
Issue: Barriers to fish movement in the catchment									
8ci	Install fish passes, according to regional priority, on: Lexhayne Weir and Wilmington Weir.	Agency, Riparian Owners, Angling Assocs	-	✓	✓	-	-	6k / 9k	There has been no further progress from the 1 st Annual Review.
8cii	Plan for improvements to less significant structures and improve conditions for fish migration where possible using low cost solutions.	Agency, Riparian Owners, Angling Assocs	✓	✓	✓	-	-	<1k pa	There has been no further progress as funding is currently not available.
8ciii	Seek to have existing 'Irish Bridges' that restrict fish passage removed or replaced.	Agency, SCC, DCC	✓	✓	-	-	-	<1k pa	Some problems were encountered during 1998 at Bishopswood Irish Bridge. The County Council was unwilling to carry out regular maintenance, resulting in pipes blocking and the formation of a barrier under low flows. There is a need to persuade the County Council to undertake maintenance at this site. No funding is currently available for bridge replacement.
Issue: Stocking with farmed fish									
8di	Discourage stocking of the catchment with farmed fish for angling purposes. Promote habitat improvements as preferred means of improving the fishery.	Agency, Riparian Owners, Fishery Associations	✓	✓	✓	✓	✓	<1k pa	This action is ongoing, and forms part of the routine work of the Agency.
Issue: Decline in brown trout stocks									
8ei	The River Axe is to be included in the current Agency investigation into the decline of brown trout in Devon Rivers.	Agency, Wild Trout Society	-	-	✓	✓	✓	u/k	Research contract to be awarded in April / May 1999.
8eii	Continue programme of habitat improvements	Agency	✓	✓	✓	✓	✓	2k pa	Spawning gravel rehabilitation was undertaken at a number of sites

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
	including rehabilitation of spawning gravels where a need is identified (see also Issue 10)								during October 1998.
Issue: Decline in roach and dace, particularly of larger fish									
8fi	Investigate status of stocks, including surveys of middle and lower reaches to assess current coarse fish populations.	Agency, Fishery Assocs	✓	-	-	-	-	2k	There has been no progress on this action to date.
Issue: The effect of fish-eating birds on salmonid and coarse fish populations									
8gi	Co-operate with the licensing authority to progress further research into this issue.	Agency, MAFF, Landowners, Anglers	✓	✓	-	-	-	<1k	An interim report was due in December 1998, but has been delayed until May 1999. The Agency will implement any recommendations arising from the research.
8gii	Continue to work positively with owners and anglers to establish the full facts in each situation.	Agency, Landowners, Anglers	✓	✓	✓	✓	✓	<1k	No applications to cull cormorants have been received during 1998.
Issue: Damage to spawning / nursery areas due to works in the River Axe not requiring Agency consent									
8hi	Seek to dissuade riparian owners from carrying out gravel removal or to limit the extent of the operation.	Agency, Riparian Owners	✓	✓	✓	✓	✓	<1k	No problems have been encountered during 1998.
8hii	Continue to pursue changes to the legislation to allow increased control on in-river works where damage to the fishery is likely to result.	Agency	✓	✓	✓	✓	✓	<1k	This is to be included for consideration in the current review of the fisheries legislation. However, if agreed by the legislative review group it may take several years before there are any changes implemented.
Issue: Illegal exploitation of sea-trout and salmon in coastal areas									
8ii	Continue regular coastal patrols in East Devon, enforcing areas closed to netting.	Agency, DSFC	✓	✓	✓	✓	✓	u/k	Regular patrols continue. Some fixed nets were seized during summer 1998 from Lyme Regis by the Harbour Master.

9. RIVER AXE PROPOSED SSSI

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Notification of River Axe SSSI									
9ai	Develop conservation strategy and consenting protocol for SSSI.	EN, Agency	✓	-	-	-	-	2k	A draft conservation strategy has been circulated for consultation, and protocol will follow shortly. The site will be notified as an SSSI by mid May 1999.
9aaii	Implement conservation strategy	EN, Agency, Rip Owners, Land Owners, Occupiers	✓	✓	✓	✓	✓	2k	See above action 9ai
9aiii	Ensure all authorisations protect value of aquatic plant communities and river geomorphology.	Agency, EN	✓	✓	✓	✓	✓	u/k	This is currently being undertaken, and will be formalised within the consenting protocol.

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
9aiv	Investigate potential sources of nutrient inputs to the proposed SSSI using plant surveys and nutrient data	Agency, EN	✓	✓	-	-	-	u/k	Monthly nutrient sampling is ongoing, and investigations are planned for 1999 which will determine the relative contribution of point source and diffuse inputs on eutrophication within the SSSI.
9av	Examine need and feasibility of nutrient control in the catchment and include in the conservation strategy.	Agency, EN	✓	✓	-	-	-	u/k	This action is dependant on the outcome of action 9iv above.

10. CATCHMENT EROSION

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Catchment erosion									
10ai	Promote riparian fencing, coppicing and planting schemes to stabilise banks and reduce silt inputs. (NB: cost here is to riparian owners)	Agency, MAFF, NFU, Farmers, Land-owners, Westcount-ry Rivers Trust.	-	-	-	-	-	n/a	There has been no progress to date due to a lack of funding. The project will be put forward for funding in 1999. There has also been some reluctance from farmers to have fencing installed.

APPENDIX

Abbreviations

ADAS	Agricultural Development Advisory Service
AONB	Area of Outstanding Natural Beauty
BAP	Biodiversity Action Plan
BTCV	British Trust for Conservation Volunteers
CoCo	Countryside Commission
DAS	Devon Archaeological Society
DBWPS	Devon Bird Watching and Preservation Society
DCC	Devon County Council
DWT	Devon Wildlife Trust
EDDC	East Devon District Council
EDHCS	East Devon Heritage Coast Service
EN	English Nature
ESA	Environmentally Sensitive Area
LA	Local Authority
MAFF	Ministry of Agriculture, Fisheries and Food
NFU	National Farmers Union
RHIER	Royal Holloway Institute of Environmental Research
RIGS	Regionally Important Geological Sites
RQO	River Quality Objective
RSPB	Royal Society for the Protection of Birds
SWWL	South West Water Ltd
TC	Town Council

References

¹The Nature of Devon: A Biodiversity Action Plan, Biodiversity Devon Partnership, July 1998, ISBN 1 85522 637 5

²European Council Directive on Species and Habitats (92/409/EEC). Official Journal of the European Communities No. L206.

Map 1 - Key sites relating to issues in the Rivers Axe and Lim Catchment



Map 2 -1997 Compliance with River Quality Objectives (River Ecosystem Classification)



Information correct as of February 1999

This map is diagrammatic

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