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ENVIRONMENT
AGENCY

SECOND ANNUAL REVIEW
OF THE
SID / OTTER
CATCHMENT MANAGEMENT PLAN
1999





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SOUTH WEST REGION**RIVERS SID & OTTER CATCHMENT MANAGEMENT PLAN - 2ND ANNUAL REVIEW****Contents**

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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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February 1999

CATCHMENT VISION

Our vision for the Sid & Otter 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 Sid & Otter 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

Under the National Rivers Authority we were committed to a programme of Catchment Management Plans (CMP) in order to produce a local agenda of integrated action for environmental improvement. These also allowed us to deploy our resources to best effect and optimise benefit for the local environment.

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

The Consultation Report for the Rivers Sid & Otter CMP was backed up by the production of an Action Plan. This 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 process will now be continued through our programme of Local Environment Agency Plans (LEAPs).

Annual Review

Implementation of the CMP is monitored and reported on annually in the Annual Review. The Annual Review also identifies 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.

Local Environment Agency Plans (LEAPs)

The Environment Agency has now initiated a programme of Local Environment Agency Plans which will cover all catchments in Devon. The LEAP for the Sid & Otter Catchment is currently being produced. We started the process with a Community Consultation Day to enable us to assess the current environmental issues in the catchment. From this we will be able to produce a document focussing on local issues which will be available for Public Consultation towards the end of 1999.

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 CMP 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

reported to the members of the Catchment Steering Group. The Catchment Steering Group Members are:

Rivers Sid & Otter Catchment Steering Group

Name	Representing
Mr P Beale	Devon Area Environment Group
Mr R Coombs	Honiton Town Council
Mr D Dixon	Conservation Officer - Blackdown Hills AONB
Mr P Gotham	Royal Society for the Protection of Birds
Mr A Knights	River Otter Association
Mr R Marker	Riparian Owner
Mr B Myers	Sid Vale Association
Mr S Noar	Tourism/Leisure
Mr C Dixon	English Nature
Brig. H Sheppard	Devon Fisheries Advisory Committee
Mr R Waller	Regional Flood Defence Committee
Mr M Williams	South West Water Ltd

Review of Progress

The following pages outline updates on the various issues, together with the relevant actions as set out in the Rivers Sid & Otter CMP Action Plan (November 1996). A summary of progress is given for each action.

Future Reviews

We will not be reviewing the CMP again. It will be replaced by the 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 the RQO map at the back of this Annual Review.

A comparison with the 1995 RE compliance assessment used in the Sid & Otter Action Plan (November 1996) shows that water quality in two stretches, the River Otter from Hoemore Farm to Rawridge and the River Love, has improved. These stretches are now compliant with their RQOs.

However, water quality in two other stretches, the River Otter from Rawridge to Clapperlane Bridge and the Roncombe Stream, has deteriorated. The River Otter from Rawridge to Clapperlane Bridge is discussed in issue 1bi. The Roncombe Stream marginally failed to meet its long term RQO of RE1 in 1997 as a result of elevated BOD. The cause of these failures is unknown. Samples taken since January 1998 show that water quality achieves RE1 and therefore it is proposed that no further action is taken.

The 1998 RE compliance assessment will be available in July and will be incorporated into the LEAP.

REVIEW OF PROGRESS

1. RIVER QUALITY OBJECTIVES

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: STW improvements required to sustain long term RQO in River Otter - Reservoir outflow to Hoemore Farm									
1ai	Pursue improvements to Churchinford STW via South West Water Ltds (SWWL) AMP3 investment programme or through any savings made in the AMP2 investment programme.	Agency, SWWL	✓	-	-	-	-	u/k	Churchinford STW has been put forward for improvement under AMP3, subject to funding being approved by OFWAT.
Issue: Failure of long term RQOs in River Otter - Hoemore Farm to Rawridge, Rawridge to Monkton, Monkton to Clapperlane Bridge and the River Love									
1bi	Undertake specific water quality modelling and water quality investigations and to identify sources of poor water quality and take remedial action where necessary.	Agency, Farmers, MAFF, ADAS, Private Dischargers	-	✓	-	-	-	u/k	<p>The River Otter from Hoemore Farm to Rawridge and the River Love were compliant with their long term RQOs of RE1 in 1997. This reflects remediation of farm and septic tank pollution in the catchment.</p> <p>The River Otter from Rawridge to Clapperlane Bridge marginally failed to comply with its RQO of RE2 and its long term RQO of RE1 in 1997 as a result of high pH, and significantly failed to comply with its long term RQO of RE1 as a result of elevated BOD. An investigation in 1998 found a farm discharge to the watercourse and improvements were made in summer 1998. This site is affected by urban runoff from Honiton as well as cattle access upstream of the monitoring site. Investigations are proposed for 1999.</p>
Issue: Risk of pollution from closed waste disposal site at Knapps Copse									
1ci	Conduct additional biological monitoring and assess impact on the watercourse.	Agency	✓	-	-	-	-	<1k	Biological monitoring carried out in 1997 found a significant improvement downstream of the closed landfill site since the previous survey in 1994. Visual improvements were also apparent. This action has now been completed.
1cii	Review Devon County Council's (DCC) monitoring results to assess performance of the treatment system.	DCC, Agency	✓	-	✓	-	-	<1k	A review of monitoring results for Knapps Copse will be completed during 1999 following the recent submission of data by Devon County Council.
Issue: Moderate biological quality in the Combe Raleigh Stream									
1di	Monitor to see if recent improvements are reflected in the biology.	Agency	✓	-	-	-	-	<1k	A biological survey undertaken in 1997 showed a significant improvement in biological quality in comparison to past surveys in 1993 and 1994. The most recent biological data is indicative of good water quality and this

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
									improvement was reflected at a routine GQA site located downstream of the sewage treatment works.
1dii	Carry out improvements to Combe Raleigh STW (installation of package plant) in 1997.	SWWL	✓	-	-	-	-	n/a	Maintenance improvements at the STW resulted in an improvement in discharge quality and therefore, installation of a package treatment plant was no longer required. This STW has a descriptive consent and will be one of a number of works to be investigated this year.

2. COMPLIANCE WITH EC DIRECTIVES AND OTHER INTERNATIONAL COMMITMENTS

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Bathing beach failure at Sidmouth Town and Budleigh Salterton									
2ai	SWWL to improve effluent quality at Sidmouth outfall by 2000.	SWWL	-	-	-	✓	-	n/a	The Bathing Waters at Sidmouth Town and Budleigh Salterton have complied with the standards of the Directive since 1995. Following construction of a new sewage treatment works at Sidford, sewage will receive secondary and ultraviolet treatment. This scheme is due to be completed in 2000.
2aii	Improve unsatisfactory CSO (Fortescue Road) discharging to the River Sid by 2000	SWWL	-	-	-	✓	-	n/a	Following investigations in 1997 there was found to be no impact on Bathing Waters and improvements were not required (please see 1st Annual Review).
2aiii	Investigate cause of any bathing beach failure.	Agency	✓	✓	✓	✓	-	u/k	Monitoring has shown compliance with the EC Bathing Beach Directive for both 1997 & 1998 (see action 2ai).
2aiv	Continue investigation into bacterial loadings from the River Sid.	Agency	✓	-	-	-	-	3k	We routinely monitor the bacterial quality of this watercourse as it can contribute to failure of EC Bathing Water Directive standards. However, no failures have been reported since 1995.
Issue: Need to designate the monitored network of the River Otter for salmonid use under the EC Freshwater Fish Directive									
2bi	Propose the monitored network on the River Otter for designation by the DoE.	DETR (DoE), Agency	✓	-	-	-	-	<1k	The proposal to designate a stretch of the River Otter from below Otterhead Lakes to Otterton as salmonid under the Directive is still under consideration. We are to seek a response from DETR as a matter of urgency.
Issue: Nutrient enrichment of the River Otter									
2ci	Collect and analyse chemical and biological monitoring data to determine trophic status and nutrient sources.	Agency	✓	✓	✓	✓	-	13k pa	A report on the nutrient status of the River Otter will be produced in 1999.
Issue: Confirmation required that the Sidmouth outfall treatment is of sufficient quality for HNDA									
2di	SWWL to provide evidence through comprehensive studies by 1997.	SWWL	-	-	-	-	-	n/a	Action completed and reported on for 1st annual review.

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
2dii	Agency to audit study and determine status, with due regard to the Sensitive Marine Area conservation status.	Agency	✓	-	-	-	-	4k	Action completed and reported on for 1st annual review.
Issue: Failure to meet standard for polyaromatic hydrocarbon (PAH) at Budleigh Brook									
2ei	Conduct analysis of different types of PAH to help identify source.	Agency	✓	-	-	-	-	<1k	The Budleigh Brook failed to comply with the standards of the EC Surface Water Abstraction Directive in 1997 for phenols and polyaromatic hydrocarbons. An investigation carried out in 1998 found road runoff and a sewer misconnection in East Budleigh to be the main cause of non-compliance. The latter was rectified by connection to the foul sewer. Resampling conducted between February and March 1998 showed no evidence of high phenol levels. Note: SWWL no longer abstract from the Budleigh Brook and therefore this site is no longer sampled under the EC Surface Water Abstraction Directive.
2eii	Review results of national research on road runoff.	Agency	✓	-	-	-	-	<1k	Action completed and reported on for 1st annual review.
Issue: Atrazine detected in public water supply boreholes									
2fi	Promote good practice amongst maize growers	MAFF, Agency, MGA, NFU	✓	✓	✓	✓	-	<1k pa	Promotion of good practice is ongoing.
2fii	Develop alternative practices which avoid using atrazine.	MAFF, Agency, MGA	✓	-	-	-	-	<1k pa	Difficulties have been encountered in finding an effective substitute to atrazine. However, concentrations of atrazine in products have been reduced. We are part funding an ongoing study by Exeter University into the influence of atrazine on groundwater in the Otter Valley.
Issue: High nitrate concentrations in groundwater									
2gi	Combat high nitrate concentrations in groundwater by; Reviewing NVZs on 4 year period; Restricting nitrate application; Monitoring effectiveness; and Providing advice to DoE and MAFF.	DETR (DoE), MAFF, Agency, NFU, CLA	✓	✓	✓	✓	-	7.5k	The outcome of the 1997 review is currently awaited. Action Plans for the agricultural review within the NVZs are due to be implemented on 19 December 1998 after which there will be a transition period of at least one year to enable implementation. We are responsible for monitoring and enforcement of these Action Plans.

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	Action completed during 1st annual review.
Issue: Low flows in the River Otter									
3bi	Complete Otter Valley Study Phase III.	Agency	-	✓	-	-	-	50k	The consultants finished their work in Spring 1998. The study is now complete and the final report has been compiled.
3bii	Develop an approach to abstraction licencing in accordance with Otter Valley Study conclusions.	Agency, SWWL, Others	✓	✓	-	-	-	2k	This has now commenced following the completion of the study report.
3biii	Apply interim licencing approach whilst study continues and solutions are developed.	Agency	✓	✓	✓	✓	-	<1k	This action is ongoing.
Issue: Need to maintain quality low flow gauging data on the River Tale									
3ci	Review options including potential capital works such as the installation of an electro-magnetic gauge.	Agency	✓	✓	-	-	-	60k	The design of the electro-magnetic flow gauge has been completed together with the purchase of instrumentation and some construction materials.
3cii	Pursue suitable option	Agency	✓	✓	✓	✓	-	84k	In river works have been completed, hut and instrumentation installed. Data recording began on 5 October 1998. Instrument calibration is to continue throughout the winter of 98/99. Hedge planting was completed during the autumn of 1998. Total spend was £84k.
Issue: Unknown risk of Blackhill Quarry to groundwater									
3di	Assess risk and propose further actions if necessary.	Agency	-	-	-	-	-	<1k	English Nature are now driving the investigations into potential impact of Blackhill Quarry on the nearby SSSI.

4. ARCHAEOLOGY

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Absence of general assessment of archaeological/historic value of whole catchment									
4ai	Set up workshop to attempt to identify lead body.	Agency	✓	-	-	-	-	<1k	Due to reorganisation at Devon County Council, this action was not progressed. For information: investigations carried out as part of the construction works along the A30 between Exeter and Honiton have revealed previously unknown site from the Iron Age and Roman periods.
4aai	Support production of document(s) covering entire area; investigate potential for collaboration.	EH, DCC, DAS, Civic Societies, Agency,	✓	-	-	-	-	<1k	No progress, the matter will be taken up with Devon County Council during 1999.

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
		RCHME, Exeter University							
Issue: Need for improved archaeological screening in authorisation									
4bi	Continue to develop external consultation process.	Agency, DCC	✓	-	-	-	-	<1k pa	Opportunities exist to consult Devon County Council when required. Consultations with DCC have occurred particularly on capital schemes.
4bii	Improve information held internally.	Agency	✓	✓	-	-	-	u/k	We are continuing to update the conservation database with archaeological information and relevant publications.

5. CONSERVATION AND THE NATURAL ENVIRONMENT

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Need for conservation of key habitats and species									
NB: The Rivers and Wetlands BAP now forms part of the Devon County BAP									
Sai	Continue development and implementation of the Rivers and Wetlands BAP.	DWT, Agency, EN, RHIER, LAS	-	✓	✓	✓	-	5k (97)	The Devon BAP was published in July 1998.
Saii	Contribute to development of other BAPing initiatives, eg. County Nature Conservation Strategy, Regional Habitat and Species Action Plans.	DCC, RSPB, DWT, SWT, EN, Agency, LAS	✓	✓	✓	✓	-	2k pa	We continue to be involved with consultations on plans and strategies.
Saiii	Ensure all available information is used and best practice followed in course of authorisations.	Agency	✓	✓	✓	✓	-	u/k	This is part of our routine work.
Issue: Need to conserve lowland heath (especially wet heath) and associated species									
5bi	Implement and promote recommendations of local, county and regional heathland strategies. (Target: no further loss of existing resource - restore 180 ha by 2005).	RSPB, DWT, EN, EDDC, EDHCS, Agency	✓	✓	✓	✓	-	<1k pa	The Devon BAP and Spotlight on Lowland Heaths was launched in July 1998. Clinton Devon Estates and the RSPB have removed 25 ha of conifer plantation on land (Dalditch) within the East Devon pebblebeds area for restoration to heath and have initiated restoration of another 20 ha of old mineral workings at Blackhill Quarry.
5bii	Implement and promote actions from R&W BAP for Southern Damselfly. (Target: maintain existing populations of Southern Damselfly - establish new populations of Southern Damselfly at two sites by 2005).	RSPB, DWT, EN, Agency, Clinton Devon Estates	✓	✓	✓	✓	-	u/k	We are co-funding two projects within the East Devon pebblebeds heaths at Aylesbeare and Colaton Raleigh Commons. The project will protect and develop existing colonies of southern damselfly through habitat management (scrub clearance and grazing regime) and water level manipulation. Work at Aylesbeare has seen a previously extinct colony develop to a peak of 87 individuals in 1997. We are also looking at another site for water

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
									level manipulation.
Sbiii	Implement and promote actions from R&W BAP for Curlew. (Targets: increase breeding curlew numbers by 25% by 2010).	RSPB, DWT, EN, Blackdown Hills Project	✓	✓	✓	✓	-	u/k	The Devon BAP and Spotlight on Devons Heathlands was launched in July 1998. We will continue to implement actions identified within the Curlew BAP as appropriate, which includes the provision of advice on the sensitivity of curlew feeding and roosting sites.
Sbiv	Confirm actions required relating to existing consents to comply with EC Habitats Directive.	Agency, EN	✓	-	-	-	-	<1k	The East Devon Pebblebed Heaths are afforded statutory protection as SPA, cSAC and SSSI. Abstractions which are likely to have an impact on the East Devon Pebblebed heaths have been identified. Further investigations involving field visits will be undertaken once guidelines for assessment have been agreed.
Issue: Need to conserve springline mire and associated species									
Sci	Enter total catchment resource into protective management schemes by 2005. (Targets: no further loss of existing resource - restore 20 ha of mire habitat by 2005).	DWT, ADAS, ESA Officers, EN	-	-	-	-	-	n/a	We are co-funding a springline mire project at Hense Moor SSSI to restore and maintain the site through reintroduction of sensitive management and scrub clearance of 3 ha, swaling of 2 ha of molinia, grazing and 1200 metres of fencing.
Scii	Produce list of priority sites for restoration by 1997.	DWT, EN, Agency, Blackdown Hills Project	✓	✓	-	-	-	<1k	Hense Moor SSSI has been identified as a priority site and work has commenced. Other sites have been identified and work has been initiated in the Culm and Yarty catchments.
Sciii	Implement and promote actions from R&W BAP for marsh fritillary. (Target: maintain existing marsh fritillary populations).	DWT, Butterfly Conservation Society, Agency, EN, Blackdown Hills Project	✓	✓	✓	✓	-	9k	Collaborative work at Hense Moor (see action Sci) will benefit marsh fritillary. No specific actions are identified for the Agency within the species BAP (part of the Devon BAP).
Issue: Loss of wet woodland and bankside trees									
Sdi	Achieve better understanding of extent and value of existing resource.	DWT, Agency	-	✓	-	-	-	2k	We have been identified for specific actions within the BAP for this habitat. These include provision of advice and promotion of wet woodland buffer areas which are being progressed. There is currently no progress on developing the potential for expansion of the total area of wet woodland within Devon (see action Sdii).
Sdii	Identify areas of river valleys where tree planting can be encouraged without adversely affecting flood risks. (Target: recreate 5 ha of wet woodland by 2005).	Blackdown Hills Project, Agency	-	✓	✓	-	-	u/k	There has been no Agency progress on this to date. However, Clinton Devon Estates have planted several hundred metres of willow stakes along the River Otter between Collaton Raleigh and Otterton. We continue to promote the management and retention of bankside trees.

No.	Action	Lead / Other Agency	97	98	99	00	01	Cost	Progress
Sdiii	Continue to monitor extent of alder root disease.	Agency	✓	✓	✓	✓	-		A new leaflet has been produced by the Forestry Authority giving an update on the spread of the disease, with revised guidance on planting Alder. Planting of Alder can be undertaken in areas where the disease is absent as the risk from infection from nursery stock is believed small. We have few records for the presence of the disease within this catchment, although its abundance within the Axe and Culm catchments would suggest its presence may be under recorded within the Sid & Otter catchment. We need records to substantiate this assumption.
Issue: Changes to bankside flora (previous actions 5el, 5ell now incorporated into Issue 9)									
Seiii	Monitor extent and spread of invasive alien species.	Agency, Riparian Owners	✓	✓	✓	✓	-	<1k pa	See action Sev.
Seiv	Control invasive species on Agency owned or managed land.	Agency	-	✓	-	-	-	u/k	We are currently working on projects in North Devon where we are investigating the cost and effectiveness of control techniques. Suitable techniques may then be employed in other catchments as necessary.
Sev	Promote control by others, especially on land of conservation value or where rights of way exist or are developed.	Agency, DCC, EDHC, EDDC, Parish Paths, NT, BTCV	✓	✓	✓	✓	-	<1k pa	Ongoing - no additional progress on 1st annual review.
Issue: Need to protect and further the conservation value of floodland habitats (especially grazing marsh and associated species)									
Sfi	Produce list of priority sites for management by 1998.	RSPB, DWT, Agency, EN, EDHCS	✓	-	-	-	-	<1k	We will continue to protect areas of floodplain through the implementation of "Policy and Practice for the protection of floodplain" whilst undertaking its legislative duties. Priority areas are being identified by the RSPB and will include the Exe and Tav/Torridge Estuaries within the Devon Area. No areas/sites have been identified within the Sid & Otter catchment.
Sfii	Implement and promote actions from R&W BAP for floodplains and grazing marsh. (Target: maintain existing area and quality of floodplain habitat with high conservation value - increase numbers of breeding waders by 20% by 2005).	Agency, RSPB, DWT, EN, EDHCS	✓	✓	✓	✓	-	u/k	Several actions have been identified within the Devon BAP for the Agency to implement. These will be progressed when and where appropriate within the Sid & Otter catchment. See Action 5fiii.

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
5fiii	Develop a water level management plan for the grazing marshes adjacent to the Otter Estuary. (Target: enhance value of 10 ha of degraded grazing marsh by better management of water levels by 2000).	EN, Agency, DWT, Occupiers, Devon Clinton Estates, EDHC	-	✓	-	-	-	5k	East Devon Heritage Coast Service have endeavoured to develop this action, but have had a less than favourable response from the land owner.
5fiv	Seek to influence levels of payment and priorities for agri-environment schemes to encourage wider uptake.	Agency, MAFF, EN	✓	✓	✓	✓	-	<1k pa	Issues have been raised by us with MAFF as part of the review of the Blackdown Hills ESA and we will continue to influence development of the Countryside Stewardship Scheme providing guidance to potential applicants.
Issue: Damage and disturbance to estuarine habitats and species									
5gi	Monitor and evaluate effect of increased siltation on estuary.	Agency	-	✓	✓	-	-	2k	We have been negotiating with MAFF on the production of awareness leaflets, a soil control manual and a risk assessment guidance. These should be fully available by mid 1999.
5gii	Ensure public access arrangements and management of banks, etc. do not adversely affect estuary through increased disturbance.	Agency, EDHCS, DWT	✓	✓	✓	✓	-	<1k	Maintenance work is arranged to try and minimise disturbance to wildlife interests.
5giii	Promote and implement, as appropriate, actions from the R&W BAP for reedbeds. (Targets: maintain and seek to increase numbers of waders and wildfowl using the Otter Estuary - actively manage all reedbeds >0.5 ha for wildlife - create additional site >0.5 ha in lower River Otter valley by 2000).	DWT, Agency, Landowners	✓	✓	✓	✓	-	<1k	Tidal reedbeds within the estuary are self-maintaining, reedbeds on the landward side of the flood defences are actively managed. There are no plans to increase the size of the reedbed at this location as this would be at the expense of the adjacent grazing marsh. The reedbed is cut in summer on a four year rotation. See Action 5fii.
Issue: Need to raise awareness of high value and threats to marine habitats									
5hi	Examine possibility of producing, with others, interpretive material, highlighting problems of intertidal habitats and species.	EDHCS, EDDC, Agency	-	✓	-	-	-	<1k	During 1997 funding was provided for the Ladram Bay Marine Interpretation Centre. The centre opened in 1997 and recorded 10,000 visitors in the first season. The visitor base is being expanded into the school/education side.
5hii	Work with Sea Fisheries committee to ensure damage to valuable habitats and features is minimised.	DSFAC, Agency, DWT	-	✓	-	-	-	<1k	Devon Wildlife Trust have made significant developments in raising the public awareness through the Lyme Bay survey of reefs and the Sea Quest initiative, and we are represented on the steering group of the Atlantic Living Coastline Project.
Issue: Failure of otters to properly recolonise Rivers Sid & Otter									
Si i	Promote and implement, as appropriate, otter action plan from R&W BAP (Includes survey work, habitat restoration, investigations into prey availability, research	DWT, Agency, EDDC, LAs, Volunteers, Riparian Owner	✓	✓	✓	✓	-	2k pa	Many actions are identified for the Agency within the otter action plan within the Devon BAP which will be implemented as appropriate. Otter populations show signs of recovery in the catchment with

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
	into levels of contaminants, etc.) (Targets: restore breeding otters to both rivers by 2010 - ensure road casualties are minimised by appropriate preventative measures).								evidence of occurrence on the Rivers Tale & Otter and upper reaches of the River Sid (Operation Otter - interim results).
Issue: Decline of water voles									
Sji	Promote and implement, as appropriate, water vole action plan from R&W BAP (Includes survey work, improvement of riparian habitat, awareness raising, monitoring of mink numbers, etc.) (Targets: identify current distribution by 1998 - achieve return to 1970s range by 2010 - restore 2km of suitable habitat by 2005).	DWT, Agency, EDDC, Volunteers, Riparian Owners	✓	✓	✓	✓	-	2k pa	Several actions have been identified for the Agency within the water vole action plan within the Devon BAP. We have co-funded spiling work on the River Otter between Colaton Raleigh and Otterton (200 metres), this work has created habitats and potential food sources for water voles.
Issue: Need for conservation of native crayfish									
Ski	Implement crayfish action plan from R&W BAP (Includes survey of former known sites, prevention of spread of non-native species, possible reintroduction programme).	Agency, MAFF	✓	✓	✓	✓	-	u/k	Selected staff at the Agency have received training in crayfish ecology and survey techniques. The next stage will involve the development of a survey programme to investigate the presence of crayfish within selected catchments to include the River Exe and probably the River Otter. MAFF have designated areas within the county where a license will be required for farming crayfish. Although the areas are based on postcodes, the whole of the Sid & Otter catchments are included. These "no-go" areas will effectively act as Signal Crayfish free zones.
Issue: Loss of nesting sites for riparian birds									
Sli	Ensure all known nest sites are protected during works or when authorising actions by others.	Agency	✓	✓	✓	✓	-	u/k	This is a routine action.
Slii	Support county-wide survey of sand martin nest sites.	DBWPS, Agency, RSPB	✓	-	-	-	-	u/k	Survey results have been assessed for the catchment. No nest sites were recorded within the Rivers Sid & Tale. 112 occupied nests were recorded on the River Otter between Whitebridge (Budleigh Salterton) and Ottery St Mary, with a further 23 recorded upstream of here.
Sliii	Survey Rivers Otter and Sid to identify kingfisher nest sites.	RSPB, DBWPS	✓	-	-	-	-	u/k	There are two confirmed breeding sites on the River Otter with a further 5-7 probable sites. No reports of breeding on the River Sid or River Tale. These results compare favourably with breeding distribution shown within "Breeding Birds of Devon". Underrecording may have occurred as with any survey which

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
									depends on volunteer information.
Issue: Protecting earth science features (eg. rock exposures and floodplain forming processes).									
5mi	Support the designation of Lyme Bay coastline as a World Heritage Site.	Agency, EN, LAs	✓	✓	-	-	-	<1k pa	The Dorset & East Devon Coast was included within the list submitted to the Department of Culture, Media and Sports for consideration as a World Heritage Site and English Nature are supporting the bid for inclusion on the list to UNESCO. The final list is anticipated later this year although designation may take up to 10 years.
5mii	Identify and document County Geological sites.	Dev & Som RIGs Groups, Agency, LAs, EN	✓	✓	✓	✓	-	<1k pa	East Devon survey complete and much of Devon has also been finished with over 200 sites identified within the county. Two sites have been identified within Sid & Otter catchment.
5miii	Promote measures to prevent loss of earth science sites and features in rivers and floodplains.	Agency	✓	✓	✓	✓	-	u/k	This action is covered by routine work.
5miv	Seek to develop schemes that reduce the impact to landowners by using sympathetic management practices, or of allowing geomorphological processes to proceed.	Agency, MAFF, DCC, Clinton Devon Estates	✓	✓	-	-	-	u/k	We have promoted and co-funded the use of spiling on the River Otter. Working through the provision of guidance and advice to landowner on the benefits of soft engineering techniques and encouraging the action of natural processes in areas where it has minimal impact to landowner.

6. RECREATION

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Need for further Improved access around rivers especially for the less able									
6ai	Investigate possibility of developing new footpath route in Ottery St Mary, linking Canaan Way to Fimmimore Industrial Estate and beyond, using new Agency flood alleviation scheme for part of route.	Agency, Ottery St Mary TC, EDDC	✓	✓	-	-	-	2k	Flooding problems in Ottery St Mary have taken priority. This is an ongoing scheme and will be progressed through consultation with town council. Currently reviewing how scheme is managed.
6aii	Work with others, including East Devon Heritage Coast Service, to provide good access and interpretation of the water environment on land owned or controlled by the Agency.	Heritate Coast Officer, DCC, CoCo, East Devon Footpath Warden	-	✓	-	-	-	u/k	We are still investigating possibilities.
6aiii	Promote use of circular and regional routes.	DCC	-	-	-	-	-	n/a	Path along the Otter from Budleigh Salterton has been improved with full disabled access and viewing points to estuary provided. Disabled access also improved in Sidmouth along the Byes.

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
6aiv	Develop vehicular access and public transport links for the less able.	DCC	-	-	-	-	-	n/a	Increases in funding for rural public transport are leading to various initiatives providing links between Newton Poppleford, Budleigh Salterton and west to Weymouth & Dorchester tied in with the existing footpath routes. (1.4m increased funding this year for Devon from Government following white paper).
Issue: Disturbance of sensitive wildlife by excessive access									
6bi	Develop active programme of bankside habitat creation between public footpaths and River Otter to provide shelter and screening for wildlife and to reduce the level of direct disturbance of the river.	Heritage Coast Officer, DCC, DWT, AONB, Agency, BTCV,	✓	✓	✓	✓	-	<1k	We have co-funded bank protection works between Otterton and Colaton Raleigh using willow. Extensive planting of willow stakes has also been undertaken along the Otter by Clinton Devon Estates, this work demonstrates the regenerative power of willow.
6bii	Raise public awareness of problem, consider appropriate interpretation.	Heritage Coast Officer, DCC, DWT, AONB, Agency, BTCV,	✓	✓	✓	✓	-	<1k	Devon Wildlife Trust will be installing interpretive boards raising public awareness by March 1999.
Issue: Lack of access agreements for canoeing									
6ci	Encourage discussions between interested parties to investigate the possibilities of allowing access to the rivers for canoeists.	Agency, BCU, LAs, Landowners, Anglers	-	✓	-	-	-	<1k pa	Investigating possibilities of updating the Whitewater Access guide (canoeing). There may be opportunities for developing winter access on the Otter for canoeing beginners and we will act as mediator.

7. REVIEW OF FLOOD DEFENCE OPERATIONS

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Coastal Management									
7ai	Prepare a Shoreline Management Plan for the Lyme Bay and South Devon Coast.	WDDC, Agency, EDDC, TDC, SHDC, WPDC, TBC, PCC, DCC	✓	-	-	-	-	33k	The Shoreline Management Plan for the Lyme Bay and South Devon Coast has now been adopted by Flood Defence Committees. 5 yearly updates are programmed.
Issue: Need to improve flood warning at some locations									
7bi	Complete the review of flood warning study.	Agency	✓	-	-	-	-	10k	A contract has been let to consultants as part of the Flood Warning Level of Service project to run next financial year. This study is to be completed by May 1999. On completion of the study a prioritised programme of works will be implemented across the South West Region.
Issue: Planning and flood risk									

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
7ci	Provide information (S105 Surveys) to planning authorities to prevent inappropriate development in the floodplain.	Agency, Planning Authorities	✓	-	-	-	-	5k	Section 105 Survey information was provided to East Devon District Council in November 1997. This action is now complete.
Issue: The efficiency and effectiveness of our flood defence work									
7di	Implement the flood defence management system (Standards of Service).	Agency	✓	-	-	-	-	137k#	Following implementation of the Standard of Service methodology, we are continuing to monitor the efficiency and effectiveness of our flood defence work. There are no additional costs to Agency.
Issue: Risk of flooding at Otterton and Newton Poppleford									
7ei	Carry out appraisal at: Newton Poppleford and Otterton	Agency, MAFF	-	✓	-	-	-	15k & 10k	Newton Poppleford pre-feasibility study is now complete, nothing has been put into the medium term plan. Otterton scheme now in capital programme for 2003/2004 at cost of £49k approx. However, due to the additional costs involved with the Easter flooding event, it is anticipated that the situation will be reviewed during February and implementation of the scheme may be put back.
Issue: Risk of flooding at Sidford									
7fi	Carry out appraisal to determine the need for a flood defence scheme.	Agency	-	✓	-	-	-	10k	No pre-feasibility study has yet been carried out.

B. FISHERIES

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Restore migratory salmonid runs to River Otter									
8ai	Improve fish passage through partnership funding at: Otterton Weir, Marles Farm, Tipton St John Weir, Tracey Weir, and Langford Weir.	Agency, Riparian Owners, Fishery Associations	-	✓	✓	-	-	u/k	Funding has now been pledged for improvements at Otterton Weir by the River Otter Association, a number of individual members of the association, the Otter Valley Association, East Devon District Council, the Environment Agency and Tesco's. Whilst these sums will amply cover the costs of designing the proposed pass, together with the costs of the structural surveys already carried out and the various authorisations required, further and substantial sums of money are likely to be needed to fund the capital works associated with the project. As yet, the total cost of the project is not known. The key factor here is the planning permission. Once we have been given this authorisation we will be able to produce detailed plans of the proposed pass and then ascertain precise costs for

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
									reinstating the weir and building the pass. We expect to be applying for planning permission in mid-January 1999. There has been no progress to date on the other sites, but a design has been prepared for the A30 crossing with a view to installing in the new future.
8aii	Maintain all other fish passes, in particular, Head Weir, Ottery St Mary.	Agency, Riparian Owners, Fishery Associations	✓	✓	✓	✓	-	<1k	This is an ongoing action that forms part of our routine activities.
Issue: Decline in brown trout population									
8bi	Investigate ova survival in the catchment at selected sites.	Agency, Fishery Associations	✓	✓	-	-	-	uu/k	This project is due to be initiated during March/April of 1999.
8bii	Determine and set targets against which to measure the need for stocking with brown trout to provide a regular supply of juveniles.	Agency, Fishery Associations	✓	✓	✓	✓	-	5k pa	Due to hatchery closure, no further stocking will be possible.
8biii	Continue programme of stocking with juvenile brown trout, reared from broodstock taken from the catchment.	Agency	✓	✓	-	-	-	2k	Due to hatchery closure, no further stocking will be possible.
Issue: Stocking with farmed brown trout									
8ci	Discourage stocking of the catchment with catchable farmed brown trout.	Agency, Riparian Owners, Fishery Associations	✓	✓	✓	✓	-	<1k	We have an ongoing policy to encourage the improvement of native brown trout stocks, including maintenance and improvement of habitats.
8cii	Promote habitat improvements and recovery of the natural populations as the preferred means of improving the fishery.	Agency, Riparian Owners, Fishery Associations	✓	✓	✓	✓	-	<1k	See action 8ci.
Issue: The effect of fish eating birds on salmonid and coarse fish populations									
8di	Co-operate with the licensing authority to progress further research into this issue.	Agency, MAFF, Landowners, Anglers	✓	-	-	-	-	<1k	The final report is now due to be produced in May 1999 (put back from December 1998).
8dii	Continue to work positively with owners and anglers to establish the full facts in each situation.	Agency, Landowners, Anglers	✓	✓	✓	✓	-	<1k	We continue to work with riparian owners and anglers to ascertain the situation in the Sid & Otter catchment.
Issue: Loss of spawning nursery areas due to works in the River Otter not requiring Agency consent									
8ei	Seek to dissuade riparian owners from carrying out gravel removal or to limit the extent of the operation.	Agency, Riparian Owners	✓	✓	✓	✓	-	<1k	We have not encountered any occurrences of gravel removal during 1998.
8eii	Continue to press for changes to the legislation to allow increased control of in-river works where damage to the fishery is likely to result.	Agency	✓	✓	✓	✓	-	<1k	This issue has been highlighted as an area of concern with the legislative review group.
8eiii	Raise awareness of practice with Waste Regulations.	Agency	✓	✓	-	-	-	<1k	This is an ongoing action that forms part of our routine activities.

9. CATCHMENT EROSION (includes CMP actions 5ei, 5eii, 8fi & 8fii)

No.	Action	Lead / Other	97	98	99	00	01	Cost	Progress
Issue: Catchment Erosion									
9a	Encourage development of ungrazed river margins. (Previously action 5ei under Conservation and the Natural Environment issue).	Agency	✓	✓	✓	✓	-	u/k	We have produced a leaflet "Understanding Buffer Strips". There has been little support from riparian owners to facilitate the creation of ungrazed margins.
9b	Encourage riparian owners to provide suitable conditions for development of more extensive marginal vegetation. (Previously action 5eii under Conservation and the Natural Environment issue).	Agency	✓	✓	✓	✓	-	<1k pa	Please see action 9a.
9c	Promote temporary bankside fencing schemes, formal stock watering points, buffer zones and appropriate bank reinstatement schemes where appropriate. (Previously action 8fi under Fisheries issue).	Agency, Landowners, Farmers, MAFF	✓	✓	-	-	-	<1k	Little progress in Otter catchment to date. There is some unwillingness by farmers to enter into fencing schemes.
9d	Consider relevance of research on the River Torridge into sediment sources to Sid & Otter Catchment.	Agency	-	-	✓	-	-	<1k pa	A study is being undertaken by the University of Exeter, but no interim reports have yet been produced.
9e	Promote MAFF's Code of Good Agricultural Practice for the Protection of Soil. (Previously action 8fii under Fisheries issue).	Agency	✓	✓	✓	✓	-	<1k	We will continue to promote the Code of Good Agricultural Practice as set out by MAFF.

APPENDIX

Abbreviations

ADAS	Agricultural Development Advisory Service
AONB	Area of Outstanding Natural Beauty
BAP	Biodiversity Action Plan
BCU	British Canoe Union
BTCV	British Trust for Conservation Volunteers
CLA	Country Landowners Association
CoCo	Countryside Commission
CSO	Combined Sewer Overflow
DAS	Devon Archaeological Society
DBWPS	Devon Bird Watching and Preservation Society
DCC	Devon County Council
DETR	Department of the Environment, Transport and the Regions
DoE	Department of the Environment (now DETR)
DSFAC	Devon Sea Fisheries Advisory Committee
DWT	Devon Wildlife Trust
EDDC	East Devon District Council
EDHCS	East Devon Heritage Coast Service
EH	English Heritage
EN	English Nature
ESA	Environmentally Sensitive Area
HNDA	High Natural Dispersion Area
LA	Local Authority
MAFF	Ministry of Agriculture, Fisheries and Food
MGA	Maize Growers Association
NFU	National Farmers Union
NVZ	Nitrate Vulnerable Zone
PAH	Polyaromatic Hydrocarbon
PCC	Plymouth City Council
RCHME	Royal Commission on Historic Monuments of England
RHIER	Royal Holloway Institute of Environmental Research
RIGS	Regionally Important Geological Sites
RQO	River Quality Objective
RSPB	Royal Society for the Protection of Birds
SHDC	South Hams District Council
SWT	Somerset Wildlife Trust
SWWSL	South West Water Services Ltd
TBC	Torbay Borough Council
TC	Town Council
TDC	Teignbridge District Council
WDDC	West Dorset District Council
WPDC	Weymouth & Portland District Council

Reference

European Council Directive of 8 December 1975 Concerning the Quality of Bathing Water (76/160/EEC). Official Journal of the European communities No. L31/1.

European Council Directive on Freshwater Fish & 78/659/EEC). Official Journal of the European Communities No. L222.

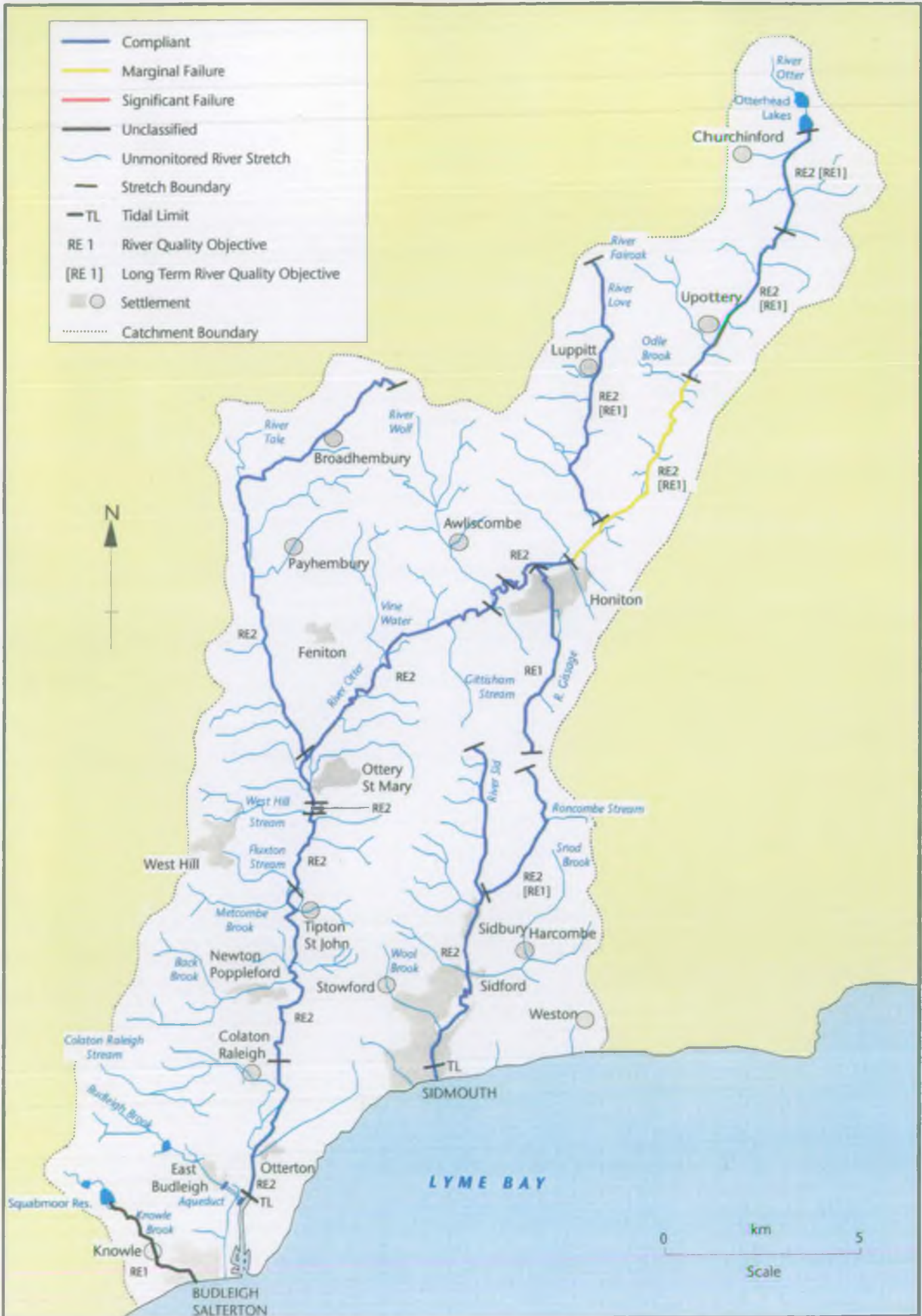
European Council Directive on Species and Habitats (92/409/EEC). Official Journal of the European Communities No. L206.

Code Good Agricultural Practice for the Protection of Soil, MAFF, 1993, PBO617.

European Council Directive of 21 May 1991 Concerning Urban Wastewater Treatment (91/271/EEC). Official Journal of the European Communities No. L135.

SW-2/99-0.4K-D-BEFD

1997 Compliance with River Quality Objectives (River Ecosystem Classification)



Information correct as of February 1999

The Rivers Sid and Otter Catchment Management Plan
Environment Agency South West Region

Key sites relating to issues in the Rivers Sid and Otter Catchment Second Annual Review



Information correct as of February 1999

The Rivers Sid and Otter Catchment Management Plan
Environment Agency South West Region

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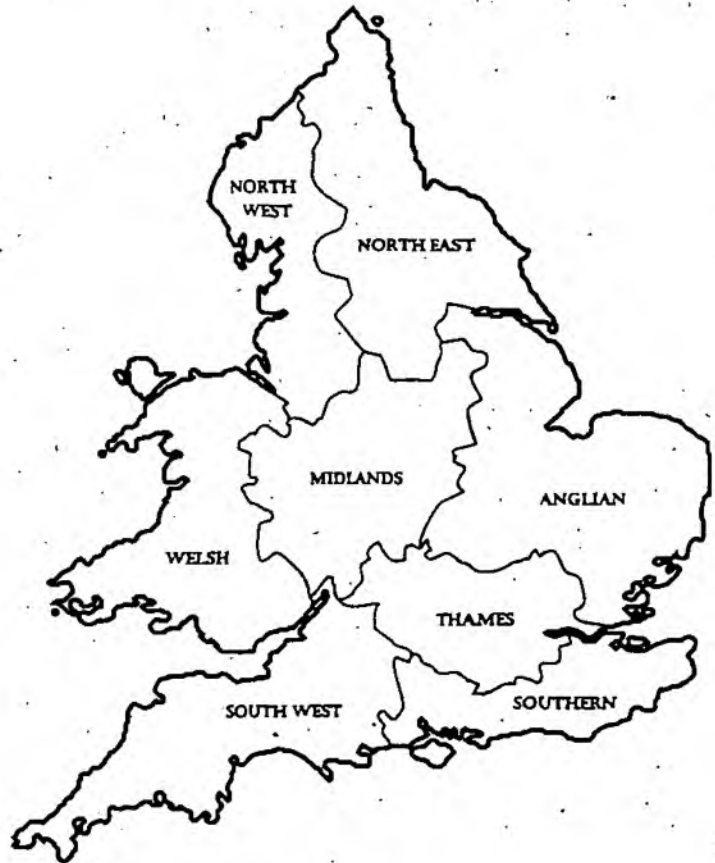
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