

EA-South West LEAPs Box 14



ENVIRONMENT  
AGENCY

**FIRST ANNUAL REVIEW**  
**OF THE**  
**SID / OTTER**  
**CATCHMENT MANAGEMENT PLAN**  
**(1998)**



EA-Water Resources/99-3



ENVIRONMENT AGENCY

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## SOUTH WEST REGION

RIVER SID AND OTTER CATCHMENT MANAGEMENT PLAN - ACTION PLAN -  
FIRST 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
#	Total cost to South West Region

Requests for further copies of this report and any enquiries concerning this plan should be directed towards:

Team Leader, Local Environment Agency Plans (Devon Area)  
Environment Agency South West Region  
Manley House  
Kestrel Way  
Exeter  
Devon EX2 7LQ

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January 1998

ENVIRONMENT AGENCY



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## **CATCHMENT VISION**

Our vision of the Rivers Sid & Otter Catchment is of a healthy and diverse water environment, managed in an environmentally sustainable way, balancing the needs of all users.

To realise the potential value and optimise the use of the water environment within this catchment, the Environment Agency will work in partnership with local authorities, environmental groups and other interested organisations. The Rivers Sid & Otter Catchment Management Plan provides an important focus for this partnership. 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 to existing discharges to meet the most appropriate standards
- development of a sustainable agricultural, aquacultural and forestry system 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.

# **1. Introduction**

## **1.1 The Environment Agency**

The Environment Agency was formed on 1 April 1996, bringing together the National Rivers Authority (NRA), Her Majesty's Inspectorate of Pollution (HMIP), the Waste Regulation Authorities (WRAs) and some units of the Department of the Environment (DoE) dealing with the technical aspects of waste and contaminated land.

### **Our Principal Aim**

Our aim, as set out in the Environment Act 1995, is to protect or enhance the environment, taken as a whole, in order to play our part in attaining the objective of sustainable development.

Sustainable development is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report).

### **Our Objectives**

The Environment Agency works towards Sustainable Development through seven objectives, set by Ministers:

- An integrated approach to environmental protection and enhancement, considering the impact of all activities on natural resources;
- Delivery of environmental goals without imposing excessive costs on industry or society as a whole;
- Clear and effective procedures for serving its customers, including the development of single points of contact with the Agency;
- High professional standards, using the best possible information and analytical methods;
- Organisation of its own activities to reflect good environmental and management practice, and provision of value for money for those who pay its charges, and for taxpayers as a whole;
- Provision of clear and readily available advice and information on its work;
- Development of a close and responsive relationship with the public, including Local Authorities, other representatives of local communities and regulated organisations.

### **Our Role**

Our work is divided into seven main functions:

- Flood Defence
- Water Resources
- Pollution Prevention and Control
- Navigation
- Fisheries
- Recreation
- Conservation

## 1.2 The Environment Planning Process

The environment is subject to a wide variety of uses which invariably interact with and sometimes conflict with each other. The process of Environment Planning helps to manage these interactions and conflicts for the overall benefit of the environment and its users. This planning process includes the production of two documents - a Consultation Report and an Action Plan. The Consultation Report identifies environmental problems, proposes actions to tackle them and acts as a focus for consultation between ourselves and other interested parties in the catchment. Following consultation, the Action Plan identifies actions to resolve the problems and issues. The Plans provide background data for Environment Agency responses to development plans and highlight our concerns about development. Achievement of the Action Plan is reported in Annual Reviews.

## 1.3 The Catchment Steering Group

Catchment Steering Groups represent a range 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 Sid & Otter Catchment Management Plan Action Plan is reported to the members of the Sid & Otter Catchment Steering Group. The Catchment Steering Group Members are:

### **Rivers Sid & Otter Catchment Steering Group:**

<b>Name</b>	<b>Representing</b>
Mr P Beale	Regional Rivers Advisory Committee
Mr R Coombes	Honiton Town Council
Mr D Dixon	Conservation Officer - Blackdown Hills AONB
Mr M Williams	South West Water Services Ltd
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 J Nickels	Local Farmers
Mr S Noar	Tourism/Leisure
Mr C Dixon	English Nature
Brig. H Sheppard	Devon Fisheries Advisory Committee
Mr R Waller	Former Regional Flood Defence Committee

## 2. Review of Progress

Issues are listed, together with the relevant actions as set out in the Rivers Sid & Otter Catchment Management Plan Action Plan (November 1996).

A summary of progress is given for each action, together with target dates for future work. Additional information on progress this year is given below.

## Otter Rehabilitation Work

Otters have been increasing in numbers and distribution across Devon, however their movement into East Devon has been slow. One of the reasons for this is thought to be a lack of suitable sites for otter holts.

During early spring 1997 an otter holt was built along a stretch of the lower River Otter with materials for construction being donated by local builders. Shortly after completion the entrances to the holt were blocked by an unknown person, the blockage was subsequently removed. We are currently unsure whether the holt has been in use, but with otters being sighted along this stretch it should only a matter of time before it becomes occupied. Two other potential sites for artificial holts have been identified and permission has been granted by the landowners.

In general, the otter population of the River Otter and its tributaries is promising and a further sign of the improving health of the catchment.

## Wimbleball Pumped Storage Scheme

The Wimbleball Pumped Storage Scheme was instigated by South West Water Services Ltd to augment the natural flow of water to Wimbleball Reservoir. Wimbleball Reservoir is used by both South West Water and Wessex Water, providing supplies for Wimbleball Supply Zone which includes the Sid & Otter catchment. Water is abstracted from the River Exe at Exebridge and pumped via an underground pipeline to Wimbleball where it discharges to the reservoir. The pumping operation is permitted to take place during the period November to March. It was first used between 4 February and 20 March 1997, pumping 384,886 cubic metres of water to the reservoir.

As a result of the high rainfall during the summer/autumn of 1997 Wimbleball reservoir is near to capacity. It is, therefore, not anticipated that there will be a need to utilise the pumped storage scheme during the winter of 1998.

## Catchment Erosion

This new issue combines actions previously included under the issues of siltation of spawning gravels and changes to bankside flora. It also includes new actions.

Erosion is a natural process. Rivers and coastlines change as the forces of water shape the land. However, there is growing concern over the rapid erosion which is occurring in certain catchments. The Sid and Otter catchment is particularly vulnerable as its' soils are very easily eroded. In addition the increase of some agricultural practices in the catchment, such as outdoor pig farming and the growing of maize has greatly increased soil erosion in certain parts of the catchment.

Research, including some on the River Torridge in Devon, has shown that excessive sediment inputs to watercourses can have a number of detrimental environmental effects including reducing the survival of salmonid embryos.

Actions to address this problem include a series of measures to reduce soil erosion and further research to establish the sources of sediment in spawning gravels. The research which is being done by Exeter University will help to target the measures being taken at the most significant sources.

## PROGRESS TABLES

### 1. RIVER QUALITY OBJECTIVES

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>STW improvements required to sustain long term RQO in River Otter - Reservoir outflow to Hoemore Farm</b>				
1ai	Pursue improvements to Churchinford STW via SWWSLs AMP3 investment programme or through any savings made in the AMP2 investment programme. <i>Action Years: 96/97</i>	Agency, SWWSL	u/k	Churchinford STW has been put forward for improvements under SWWSLs AMP3 investment programme.
<b>Failure to meet long term RQOs in River Otter - Hoemore Farm to Rawridge, Rawridge to Monkton, Monkton to Clapperlane Bridge and the River Love</b>				
1bi	Undertake specific water quality modelling and water quality investigations and to identify sources of poor water quality and take remedial action where necessary. <i>Action Years: 97/98</i>	Agency, Farmers, MAFF, ADAS, Private Dischargers	u/k	Computer modelling work to identify main sources of poor water quality will be carried out during 1998.
<b>Risk of pollution from closed waste disposal site at Knapps Copse</b>				
1ci	Conduct additional biological monitoring and assess impact on the watercourse. <i>Action Years: 96/97</i>	Agency	<1k	Treatment facilities have been installed and are working well. Recent survey showed total of 35 macro-invertebrate families present in stream.
1cii	Review DCCs monitoring results to assess performance of the treatment system. <i>Action Years: 97</i>	DCC, Agency	<1k	The results of the Devon County Council survey will be assessed to ascertain performance of treatment.
<b>Moderate biological quality in the Combe Raleigh Stream</b>				
1di	Monitor to see if recent improvements are reflected in the biology. <i>Action Years: 97</i>	Agency	<1k	Samples were collected during summer/autumn and sample processing is now underway. It is anticipated that data will be available early 1998
1dii	Carry out improvements to STW (installation of package plant) in 1997. <i>Action Years: 97</i>	SWWSL	n/a	Installation of a package treatment plant has been delayed, however, maintenance improvements to the STW have resulted in improvement in discharge. We will continue to monitor the situation.



## 2. COMPLIANCE WITH EC DIRECTIVES AND OTHER INTERNATIONAL COMMITMENTS

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Bathing beach failure at Sidmouth Town and Budlelgh Salterton</b>				
2ai	SWWSL to improve effluent quality at Sidmouth outfall by 2000. <i>Action Years: By 2000</i>	SWWSL	n/a	During 1997 South West Water Services Ltd held a public meeting to discuss possible locations for the siting of the new treatment works. To date no definite decision has been made on the location.
2aii	Improve unsatisfactory CSO (Fortescue Road) discharging to the River Sid by 2000. <i>Action Years: By 2000</i>	SWWSL	n/a	Samples taken during the summer of 1997 show past failures due to freshwater inputs. (The discharge at Fortescue Road is from a private treatment plant which is consented, this discharge will eventually be connected to Sidmouth STW) - There is no CSO in vicinity of Fortescue Road.
2aiii	Investigate cause of any bathing beach failure. <i>Action Years: 96/97/98/99/2000</i>	Agency	u/k	Monitoring has shown compliance with the EC Bathing Beach Directive for both 1996 and 1997.
2aiv	Continue investigation into bacterial loadings from the River Sid. <i>Action Years: 96</i>	Agency	3k	Data has been collected and passed to Regional Tidal Waters section for assessment. Currently awaiting results.
<b>Need to designate the monitored network of the River Otter for salmonid use under the EC Freshwater Fish Directive</b>				
2bi	Propose the monitored network on the River Otter for designation by the DoE. <i>Action Years: 96</i>	DoE, Agency	<1k	A 39.4 km stretch of the River Otter from below Otterhead Lakes to Otterton was proposed for designation in 1996. This is currently being considered by the DETR. However, until EC Freshwater Fish Directive is translated into law these designations are informal.
<b>Nutrient enrichment of the River Otter</b>				
2ci	Collect and analyse chemical and biological monitoring data to determine trophic status and nutrient sources. <i>Action Years: Ongoing</i>	Agency	13k pa	This work was completed as part of the Urban Waste Water Treatment Directive assessment.
<b>Confirmation required that the Sidmouth outfall treatment is of sufficient quality for HNDA</b>				
2di	SWWSL to provide evidence through comprehensive studies by 1997. <i>Action Years: 97</i>	SWWSL	n/a	SWWSL will now not be pursuing comprehensive studies as the effluent from Sidmouth outfall will now receive secondary treatment as required under UWWTD. We will, therefore, remove this action and action 2dii from future plans.
2dii	Agency to audit study and determine status, with due regard to the Sensitive Marine Area conservation status. <i>Action Years: 97</i>	Agency	4k	See above.

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Failure to meet standard for polyaromatic hydrocarbons (PAH) at Budleigh Brook</b>				
2ei	Conduct analysis of different types of PAH to help identify source. <i>Action Years: 97</i>	Agency	<1k	We are currently monitoring two sites, East Budleigh and Squabmoor Reservoir. A failure was recorded at East Budleigh during 1996 due to heavy rain causing road runoff. Monitoring will continue to try and identify possible sources.
2eii	Review results of national research on road runoff. <i>Action Years: 97</i>	Agency	<1k	The National Project into road run-off and PAH non-compliance has been reassessed as no longer required due to fewer non-compliance's. Therefore, we are unable to review the results of the research.
<b>Atrazine detected in public water supply boreholes</b>				
2fi	Promote good practice amongst maize growers. <i>Action Years: 96/97/98/99/2000</i>	MAFF, Agency, MGA, NFU	<1k pa	We are contributing to a study of the influence of Atrazine on groundwater in the Otter Valley being carried out by the Earth Resources Centre at Exeter University. We published a booklet in February 1997, Managing Maize: Environmental Protection with Profit. This booklet has been distributed amongst maize growers in the catchment.
2fii	Develop alternative practices which avoid using atrazine. <i>Action Years: 96/97</i>	MAFF, Agency, MGA	<1k pa	This is dependant on the findings of the previous action.
<b>High nitrate concentrations in groundwater</b>				
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. <i>Action Years: 96/97/98/99/2000</i>	DoE, MAFF, Agency, NFU, CLA	7.5k	Ongoing.

### 3. WATER RESOURCES

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Forecast deficits in Wimbleball public water supply zone</b>				
3ai	Complete and operate Wimbleball Pumped Storage Scheme Operational Management Strategy. <i>Action Years: 96</i>	Agency, SWWSL	2k	Wimbleball pumped storage scheme up and running - supplying 384,886 cubic metres to Wimbleball Reservoir. Due to the current level of the reservoir, SWWSL do not anticipate using the scheme during 1998.
<b>Low flows in the River Otter</b>				
3bi	Complete Otter Valley Study Phase III. <i>Action Years: 96</i>	Agency	50k	The consultants have been delayed in completing model improvements, therefore the completion date for the study is now anticipated to be March 1998. Current spending £13k (of total allowance of £25k)
3bii	Develop an approach to abstraction licences in accordance with Otter Valley Study conclusions. <i>Action Years: 97/98</i>	Agency, SWWSL, Others	2k	Development of this is dependant upon the outcome of the Phase III study, but is expected to be completed during 1998.
3biii	Apply interim licensing approach whilst study continues and solutions are developed. <i>Action Years: 96/97/98/99/2000</i>	Agency	<1k	The use of "Green" and "Red" zones has continued, use of time limited licences where precautionary principle is relevant. In short, we have applied the interim approach.
<b>Need to maintain quality low flow gauging data on the River Tale</b>				
3ci	Review options including potential capital works such as the installation of an electro-magnetic gauge. <i>Action Years 96/97:</i>	Agency	10k	The Design for an electro-magnetic flow gauge will be completed by March 1998. Installation work is planned for the summer of 1998.
3cii	Pursue suitable option. <i>Action Years: 96/97/98/99/2000</i>	Agency	u/k	Flow gauge data will be gathered following installation of gauge during summer of 1998.
<b>Unknown risk of Blackhill Quarry to groundwater</b>				
3di	Assess risk and propose further actions if necessary. <i>Action Years: 96</i>	Agency	<1k	Waiting for work to be done by main parties involved (EN & Bardon Quarries, formerly CAMAS). Also waiting for an indication of the general direction of the negotiations between EN/Bardon/DCC. Site visit and site familiarisation complete. On-going project in the foreseeable future, but not for agency direct action.

#### 4. ARCHAEOLOGY

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Absence of general assessment of archaeological/historic value of whole catchment</b>				
4ai	Set up workshop to attempt to identify lead body. <i>Action Years: 97</i>	Agency	<1k	Ongoing.
4aia	Support production of document(s) covering entire area; investigate potential for collaboration. <i>Action Years: 97</i>	EH, DCC, DAS, Civic Society, Agency, RCHME, University of Exeter	<1k	A pilot study into the archaeological/historic value is currently taking place for East Devon catchments.
<b>Need for improved archaeological screening in authorisation</b>				
4bi	Continue to develop external consultation process. <i>Action Years: 97</i>	Agency, DCC	<1k pa	This is dependant on the outcome of action 4aia.
4bia	Improve information held internally. <i>Action Years: 97/98</i>	Agency	u/k	This is dependant on the outcome of action 4aia.

## 5. CONSERVATION OF THE NATURAL ENVIRONMENT

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Need for conservation of key habitats and species</b>				
<b>NB: The Rivers and Wetlands BAP now forms part of the Devon County BAP which is currently being developed.</b>				
Sai	Continue development and implementation of the Rivers and Wetlands BAP. <i>Action Years: 96/97/98/99/2000</i>	DWT, Agency, EN, RHIER, LAs	5k (97)	This will now form part of the Devon County BAP.
Saii	Contribute to development of other BAPing initiatives, eg. County Nature Conservation Strategy, Regional Habitat and Species Action Plans. <i>Action Years: 96/97/98/99/2000</i>	DCC, RSPB, DWT, SWT, EN, Agency, LAs	2k pa	The draft County plan has been published for comments. The Regional BAP was published in June 1997.
Saiii	Ensure all available information is used and best practice followed in course of authorisations. <i>Action Years: 96/97/98/99/2000</i>	Agency	u/k	Ongoing.
<b>Need to conserve lowland heath (especially wet heath) and associated species</b>				
Sbi	Implement and promote recommendations of local, county and regional heathland strategies. (Target: no further loss of existing resource - restore 180 ha by 2005). <i>Action Years: 96/97/98/99/2000</i>	RSPB, DWT, EN, EDDC, EDHCS, Agency	<1k pa	Ongoing.
Sbii	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). <i>Action Years: 96/97/98/99/2000</i>	RSPB, DWT, EN, Agency	u/k	We are working in collaboration with the Blackdown Hills Project Officer to support implementation of recommendations from R&W BAP (Devon County BAP).
Sbiii	Implement and promote actions from R&W BAP for Curlew. (Targets: increase breeding curlew numbers by 25% by 2010). <i>Action Years: 96/97/98/99/2000</i>	RSPB, DWT, EN, Blackdown Hills Project	u/k	As above.
Sbiv	Confirm actions required relating to existing consents to comply with EC Habitats Directive. <i>Action Years: 97</i>	Agency, EN	<1k	There are no sites of lowland heath within the Sid & Otter catchment which have been identified under the EC Habitats Directive.
<b>Need to conserve springline mire habitat and associated species</b>				
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). <i>Action Years: By 2005</i>	DWT, ADAS, ESA Officers, EN	n/a	Devon Wildlife Trust are continuing to identify sites for inclusion in the management scheme.

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
Scii	Produce list of priority sites for restoration by 1997. <i>Action Years: 97</i>	DWT, EN, Agency	<1k	This action is to be carried forward to 1998
Sciii	Implement and promote actions from R&W BAP for marsh fritillary. (Target: maintain existing marsh fritillary populations). <i>Action Years: 96/97/98/99/2000</i>	DWT, Butterfly Conservation Society, Agency, EN, Blackdown Hills Project	9k	Ongoing.
<b>Loss of wet woodland and bankside trees</b>				
Sdi	Achieve better understanding of extent and value of existing resource. <i>Action Years: 98</i>	DWT, Agency	2k	Any actions highlighted in the County Wet Woodlands Habitat Action Plan will be progressed as appropriate.
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). <i>Action Years: 98/99</i>	Blackdown Hills Project, Agency	u/k	This will be carried out during 1998 and 1999.
Sdiii	Continue to monitor extent of alder root disease. <i>Action Years: 96/97/98/99/2000</i>	Agency		We are continuing to monitor the situation in conjunction with the Forestry Authority. One case of alder root disease has recently been reported at Budleigh Salterton.
<b>Changes to bankside flora (previous actions Se1, Se2 now incorporated into issue 9)</b>				
Seiii	Monitor extent and spread of invasive alien species. <i>Action Years: 96/97/98/99/2000</i>	Agency, Riparian Owners	<1k pa	Ongoing.
Seiv	Control invasive species on Agency owned or managed land. <i>Action Years: 98</i>	Agency	u/k	Ongoing - however, there has been no control work to date on any agency managed land within the catchment.
Sev	Promote control by others, especially on land of conservation value or where rights of way exist or are developed. <i>Action Years: 96/97/98/99/2000</i>	Agency, DCC, EDHC, EDDC, Parish Paths Initiative, NT, BTCV	<1k pa	Ongoing - leaflets on the control of invasive plants have been distributed to landowners and are also available on request.

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Need to protect and further the conservation value of floodland habitats (especially grazing marsh and associated species)</b>				
Sfi	Produce list of priority sites for management by 1998. <i>Action Years: 97/98</i>	RSPB, DWT, Agency, EN, EDHCS	<1k	No progress to date, this action is to be carried forward to 1998
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). <i>Action Years: 96/97/98/99/2000</i>	Agency, RSPB, DWT, EN, EDHCS	u/k	We will implement any actions from the Devon County BAP which may be appropriate.
Sfiii	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). <i>Action Years: 98</i>	EN, Agency, DWT, Occupiers, Devon Clinton Estates, EDHC	5k	There has been no action on this to date.
Sfiv	Seek to influence levels of payment and priorities for agri-environment schemes to encourage wider uptake. <i>Action Years: 96/97/98/99/2000</i>	Agency, MAFF, EN	<1k pa	Ongoing.
<b>Damage and disturbance to estuarine habitats and species</b>				
Sgi	Monitor and evaluate effect of increased siltation on estuary. <i>Action Years: 98/99</i>	Agency	2k	Soil erosion is still a major problem in the lower stretches of the River Otter. Talks are to take place with MAFF and associated agencies combined with visits to vulnerable areas to advise farmers on ways to combat problem.
Sgii	Ensure public access arrangements and management of banks, etc. do not adversely affect estuary through increased disturbance. <i>Action Years: 96/97/98/99/2000</i>	Agency, EDHCS, DWT	<1k	Ongoing.
Sgiii	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). <i>Action Years: 96/97/98/99/2000</i>	DWT, Agency, Landowners	<1k	There has been no progress to date, this action will be carried forward to 1998.

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Need to raise awareness of high value and threats to marine habitats</b>				
Shi	Examine possibility of producing, with others, interpretative material, highlighting problems of intertidal habitats and species. <i>Action Years: 98</i>	EDHCS, EDDC, Agency	<1k	During 1997 funding was provided for the Ladrum Bay Marine Interpretation Centre.
Shi	Work with Sea Fisheries committee to ensure damage to valuable habitats and features is minimised. <i>Action Years: 98</i>	DSFC, Agency	<1k	Ongoing.
<b>Failure of otters to properly recolonise Rivers Sid and Otter</b>				
Si i	Promote and implement, as appropriate, otter action plan from R&W BAP (Includes survey work, habitat restoration, investigations into prey availability, research into levels of contaminants, etc.) (Targets: restore breeding otters to both rivers by 2010 - ensure road casualties are minimised by appropriate preventative measures). <i>Action Years: 96/97/98/99/2000</i>	DWT, Agency, EDDC, LAs, Volunteers, Riparian Owner	2k pa	There has been a significant increase in the otter population of the River Otter (see Section 2). We will implement any actions from the Devon County BAP that are appropriate. This action will be amended to take account of recent development.
<b>Decline of water voles</b>				
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). <i>Action Years: 96/97/98/99/2000</i>	DWT, Agency, EDDC, Volunteers, Riparian Owners	2k pa	We are keen to hear of any historic water vole sites within the catchment.
<b>Need for conservation of native crayfish</b>				
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). <i>Action Years: 96/97/98/99/2000</i>	Agency, MAFF	u/k	There has been no action on crayfish to date.
<b>Loss of nesting sites for riparian birds</b>				
Sli	Ensure all known nest sites are protected during works or when authorising actions by others. <i>Action Years: 96/97/98/99/2000</i>	Agency	u/k	Ongoing.
Slii	Support county-wide survey of sand martin nest sites. <i>Action Years: 97</i>	DBWPS, Agency, RSPB	u/k	Draft results of the DBWPS survey have been received. A full report on the findings has yet to be produced.



ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
Sliii	Survey Rivers Otter and Sid to identify kingfisher nest sites. <i>Action Years: 97</i>	RSPB, DBWPS	u/k	As action Slii.
<b>Protecting earth science features (eg. rock exposures and floodplain forming processes)</b>				
Smi	Support the designation of Lyme Bay coastline as a World Heritage Site. <i>Action Years: 97/98</i>	Agency, EN, LAs	<1k pa	Devon County Council are progressing the designation of the Lyme Bay coastline as a World Heritage Site.
Smii	Identify and document County Geological sites. <i>Action Years: 96/97/98/99/2000</i>	Dev & Som RIGS, Agency, LAs, EN	<1k pa	A survey of County Geological sites has been completed, 25 sites have been identified throughout the county.
Smiii	Promote measures to prevent loss of earth science sites and features in rivers and floodplains. <i>Action Years: 96/97/98/99/2000</i>	Agency	u/k	Ongoing.
Smiv	Seek to develop schemes that reduce the impact of landowners of using sympathetic management practices, or of allowing geomorphological processes to proceed. <i>Action Years: 97/98</i>	Agency, MAFF, DCC	u/k	Ongoing.

## 6. RECREATION

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Need for further improved access around rivers especially for the less able</b>				
6ai	Investigate possibility of developing new footpath route in Ottery St Mary, linking Canaan Way to Finnimore Industrial Estate and beyond, using new Agency flood alleviation scheme for part of route. <i>Action Years: 97/98</i>	Agency, Ottery St Mary Town Council, EDDC	2k	There has been no progress to date on this action, but it is hoped that there may be some movement on this issue during 1998.
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. <i>Action Years: 98</i>	Heritage Coast Officer, DCC, CoCo, East Devon Footpath Warden	u/k	Action to be carried out during 1998.
6aiii	Promote use of circular and regional routes. <i>Action Years: Ongoing</i>	DCC	n/a	This is an ongoing action for Devon County Council.
6aiv	Develop vehicular access and public transport links for the less able. <i>Action Years: Ongoing</i>	DCC	n/a	This is an ongoing action for Devon County Council.
<b>Disturbance of sensitive wildlife by excessive access</b>				
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. <i>Action Years: 96/97/98/99/2000</i>	Heritage Coast Officer, DCC, DWT, AONB, Agency, BTCV,	<1k	Ongoing. Clinton Devon Estates have carried out some work on bankside habitat creation.
6bii	Raise public awareness of problem, consider appropriate interpretation. <i>Action Years: 96/97/98/99/2000</i>	Heritage Coast Officer, DCC, DWT, AONB, Agency, BTCV,	<1k	There has been no progress on this action to date.
<b>Lack of access agreements for canoeing</b>				
6ci	Encourage discussions between interested parties to investigate the possibilities of allowing access to the rivers for canoeists. <i>Action Years: 98</i>	Agency, BCU, LAs, Landowners, Anglers	<1k pa	There has been no progress on this action to date.

## 7. REVIEW OF FLOOD DEFENCE OPERATIONS

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Coastal management</b>				
7ai	Prepare a Shoreline Management Plan for the Lyme Bay and South Devon Coast. <i>Action Years: 96/97</i>	WDDC, Agency, EDDC, TDC, SHDC, WPDC, TBC, PCC, DCC	32k#	Draft Shoreline Management Plan for the Lyme Bay and South Devon Coast is due for completion in December 1997. Adoption of Plan by operating authorities is expected during 1998.
<b>Need to improve flood warning at some locations</b>				
7bi	Complete the review of flood warning study. <i>Action Years: 97</i>	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 will complete the review of the flood warning study.
<b>Planning and flood risk</b>				
7ci	Provide information (S105 Surveys) to planning authorities to prevent inappropriate development in the floodplain. <i>Action Years: 96</i>	Agency, Planning Authority	5k	S105 Survey information was provided to East Devon District Council on 20 November 97.
<b>The efficiency and effectiveness of our flood defence work</b>				
7di	Implement the flood defence management system (Standards of Service). <i>Action Years: 96</i>	Agency	137k#	Standard of Service methodology has been implemented. Monitoring of the system is continuing.
<b>Risk of flooding at Otterton and Newton Poppleford</b>				
7ei	Carry out appraisal at: Newton Poppleford <i>Action Years: 96</i> Otterton <i>Action Years: 98</i>	Agency, MAFF	15k 10k	Otterton scheme now in capital programme for 2003/2004 at £35k approx. Newton Poppleford scheme is still at pre-feasibility stage, but there is unlikely to be sufficient benefit to justify a scheme.
<b>NEW ISSUE</b>				
<b>Risk of flooding at Sidford</b>				
7fi	Carry out appraisal to determine need for flood defence scheme at Sidford. <i>Action Years: 98</i>	Agency	10k	This is a new action for the 1998 financial year.

## 8. FISHERIES

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Restore migratory salmonid runs to River Otter</b>				
8ai	Improve fish passage through partnership funding at: Otterton Weir, Marles Farm, Tipton St John Weir, Tracey Weir, and Langford Weir. <i>Action Years: 98/99</i>	Agency, Riparian Owners, Fishery Associations	u/k	A fish pass was installed at Tracey Weir. A structural survey of Otterton Weir was carried out prior to final fish pass design.
8aii	Maintain all other fish passes, in particular, Head Weir, Ottery St Mary. <i>Action Years: 96/97/98/99/2000</i>	Agency, Riparian Owners, Fishery Associations	<1k	Blockstones were repositioned at Head Weir to improve pass efficiency
<b>Decline in brown trout population</b>				
8bi	Investigate ova survival in the catchment at selected sites. <i>Action Years: 97/98</i>	Agency, Fishery Associations	u/k	There has been no progress on this action.
8bii	Determine and set targets against which to measure the need for stocking with brown trout to provide a regular supply of juveniles. <i>Action Years: 96/97/98/99/2000</i>	Agency, Fishery Associations	5k pa	Due to closure of hatchery, further Agency action is not possible. Restocking could possibly be carried out by riparian owners, but we would wish to see strict controls applied to any such activities. National policy is to assess why brown trout stocks may be declining and to look at other measures, including habitat improvements, to increase numbers.
8biii	Continue programme of stocking with juvenile brown trout, reared from broodstock taken from the catchment. <i>Action Years: 97/98</i>	Agency	2k	As above.
<b>Stocking with farmed brown trout</b>				
8ci	Discourage stocking of the catchment with catchable farmed brown trout. <i>Action Years: 96/97/98/99/2000</i>	Agency, Riparian Owners, Fishery Associations	<1k	Ongoing.
8cii	Promote habitat improvements and recovery of the natural populations as the preferred means of improving the fishery. <i>Action Years: 96/97/98/99/2000</i>	Agency, Riparian Owners, Fishery Associations	<1k	Ongoing.
<b>The effect of fish eating birds on salmonid and coarse fish populations</b>				
8di	Co-operate with the licensing authority to progress further research into this issue. <i>Action Years: 96/97</i>	Agency, MAFF, Landowners, Anglers	<1k	MAFF/Agency research is ongoing. Final report due in December 1998. We will consider the implementation of interim recommendations when available.
8dii	Continue to work positively with owners and anglers to establish the full facts in each situation. <i>Action Years: 96/97/98/99/2000</i>	Agency, Landowners, Anglers	<1k	We are not aware of any applications for cormorant control in the Otter catchment to date.

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
<b>Loss of spawning nursery areas due to works in the River Otter not requiring Agency consent</b>				
8ei	Seek to dissuade riparian owners from carrying out gravel removal or to limit the extent of the operation. <i>Action Years: 96/97/98/99/2000</i>	Agency, Riparian Owners	<1k	Ongoing.
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. <i>Action Years: 96/97/98/99/2000</i>	Agency	<1k	This is to be included in the present review of fisheries legislation.
8eiii	Raise awareness of practice with Waste Regulations. <i>Action Years: 96/97/98/99/2000</i>	Agency	<1k	Ongoing.

**9. CATCHMENT EROSION (includes previous actions 5ei, 5eii, 8fi, 8fii)**

ISSUE	ACTION	RESPONSIBLE LEAD / OTHER	COST TO AGENCY	PROGRESS TO DATE
9a	Encourage development of ungrazed river margins. <i>Action Years: 96/97/98/99/2000</i>	Agency	u/k	Money is now available for fencing schemes should farmers wish to apply.
9b	Encourage riparian owners to provide suitable conditions for development of more extensive marginal vegetation. <i>Action Years: 96/97/98/99/2000</i>	Agency	<1k pa	This action is to be combined with action 5ei.
9c	Promote temporary bankside fencing schemes, formal stock watering points, buffer zones and bank reinstatement schemes where appropriate. <i>Action Years: 97/98</i>	Agency, Landowners, Farmers, MAFF	<1k	Some survey work has been carried out to locate priority sites. It is planned to carry out schemes before the end of the financial year (1997/98).
9d	Consider relevance of research on the River Torridge into sediment sources to Sid and Otter Catchment	Agency	<1k	Research scheduled for completion October 1999.
9e	Promote MAFF's Code of Good Agricultural Practice for the Protection of Soil and free advice available through FRCA. <i>Action Years: 96/97/98/99/2000</i>	Agency	<1k	Ongoing.

## 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
CoCo	Countryside Commission
CSO	Combined Sewer Overflow
DAS	Devon Archaeological Society
DBWPS	Devon Birdwatching and Preservation Society
DCC	Devon County Council
DETR	Department of 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
NT	National Trust
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
TDC	Teignbridge District Council
UWWTD	Urban Waste Water Treatment Directive
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.

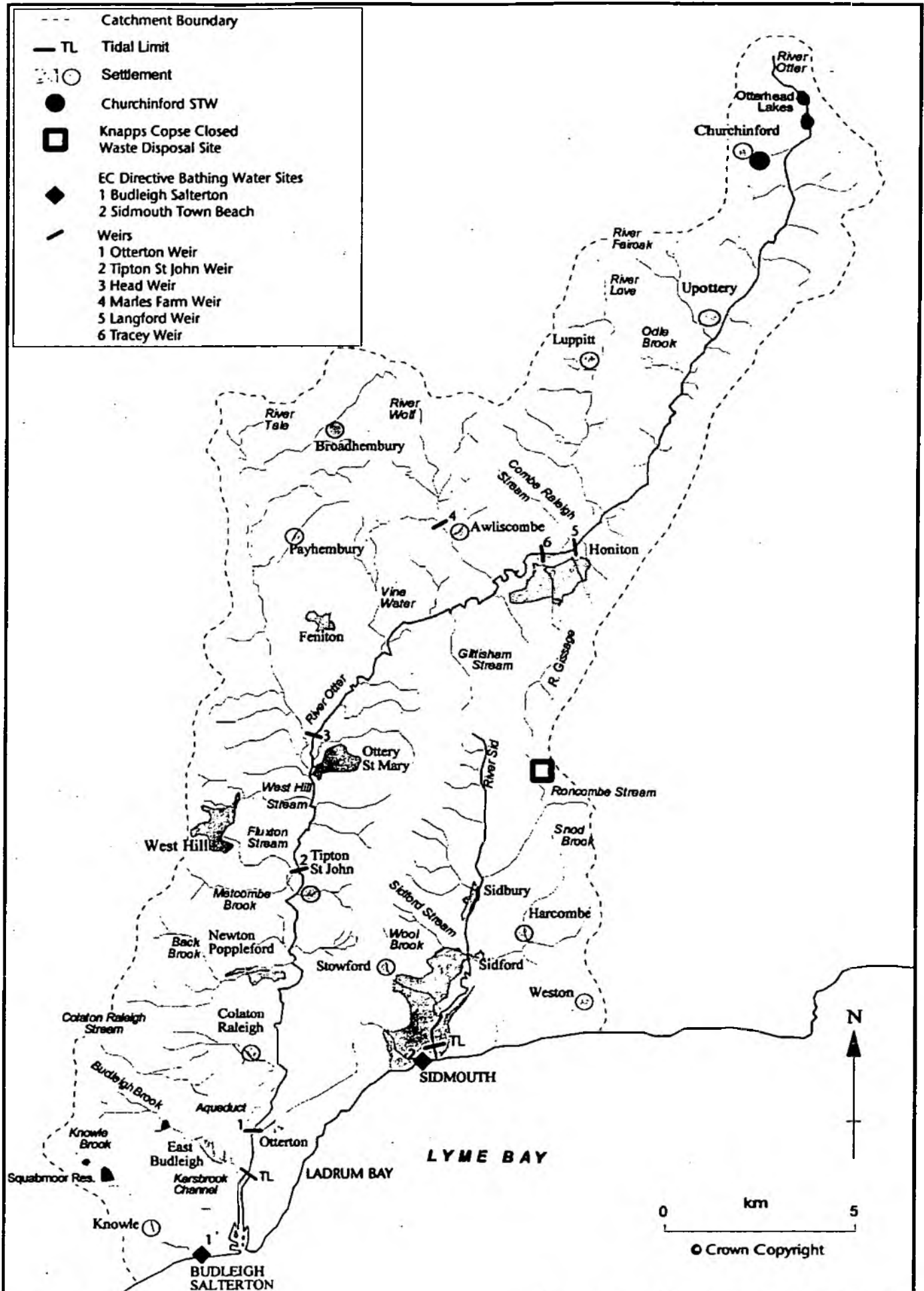
European Council Directive on Freshwater Fish & 78/659/EEC). Official Journal of the European Communities No. L222.

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.

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



Information correct as of December 1997

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