

EA-SOUTH WEST LEAPS Box 8



ENVIRONMENT  
AGENCY

**SECOND ANNUAL REVIEW**  
**OF THE**  
**SEATON, LOOE AND FOWEY**  
**CATCHMENT MANAGEMENT**  
**PLAN**  
**(1998)**



**SEATON, LOOE AND FOWEY CATCHMENT  
MANAGEMENT PLAN  
SECOND ANNUAL REVIEW: JANUARY - DECEMBER  
1997**

**CORNWALL AREA LEAPs TEAM  
MARCH 1998**



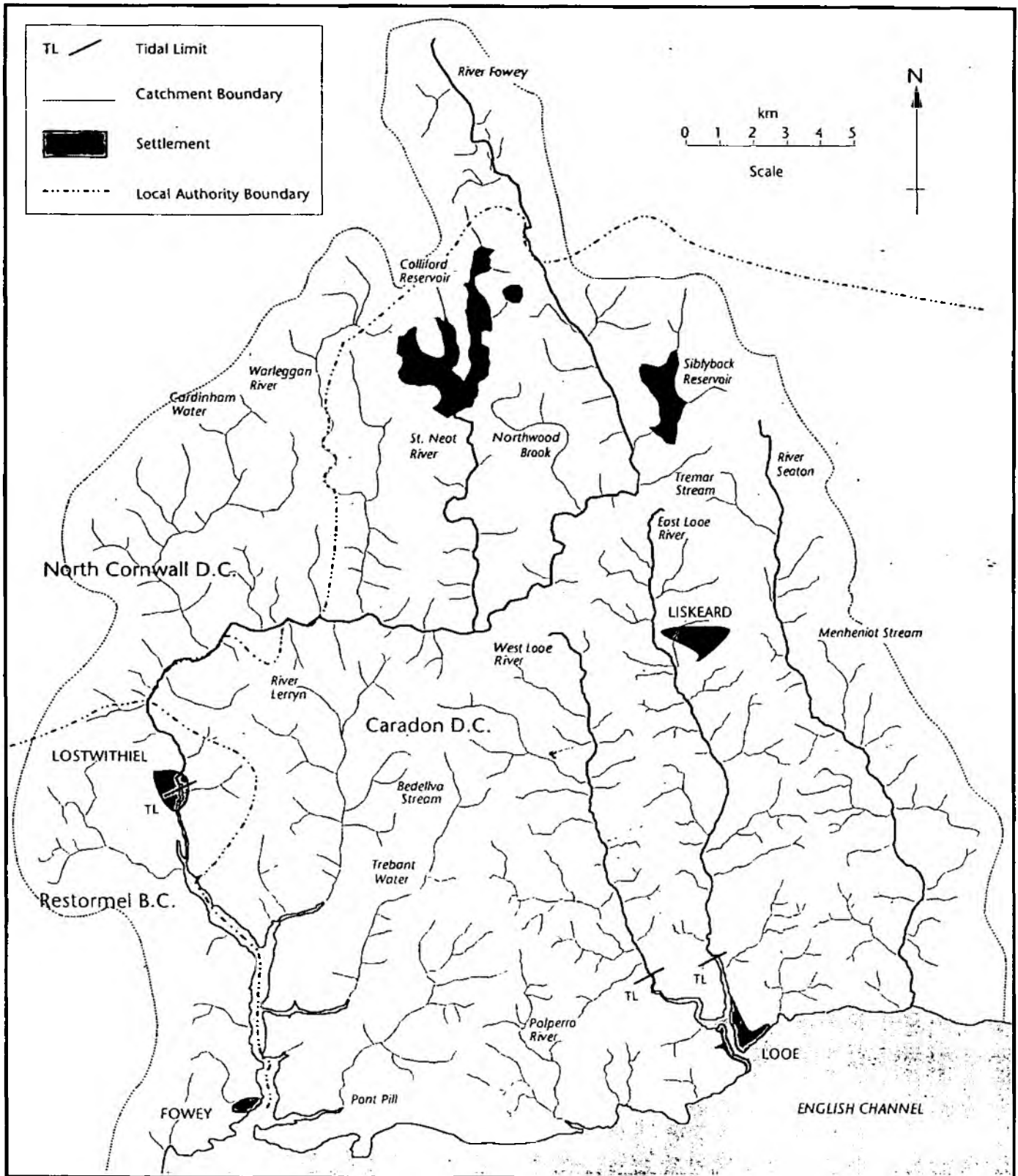
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**Map 1 - Seaton, Looe and Fowey Catchment**



## VISION FOR THE CATCHMENT

Our vision for the catchment was first published in the Seaton, Looe and Fowey Catchment Management Plan Consultation Report and ratified in the Action Plan.

Most societies want to achieve economic development to secure a better quality of life, now and in the future. They also seek to protect their environment now and for their children. Sustainable development tries to reconcile these two objectives - meeting the needs of the present without compromising the ability of future generations to meet their own needs. To achieve this judgements have to be made about the weight to be put on different factors in particular cases. Sometimes environmental costs have to be accepted as the price of economic development but on other occasions a site, or an ecosystem, or some other aspect of the environment has to be regarded as so valuable that it should be protected from exploitation.

The Seaton, Looe and Fowey Catchment is a high quality environment which has suffered relatively little harm from development. However one of the early industries which brought prosperity to the area - mining - has left a legacy of contaminated drainage which continues to affect rivers in the catchment.

The catchment is significant in regional terms for providing public water supply from Colliford and Siblyback reservoirs and the River Fowey.

Today the Environment Agency's role is to recognise what environmental features are important in the catchment and ensure that developments do not cause unacceptable damage to them.

In practice we achieve environmental sustainability by setting limits of acceptable environmental change. Some of the activities which are described in the tables in this Action Plan outline our role in setting these limits - particularly in the field of water quality management.

The Agency's vision for the Seaton, Looe and Fowey Catchment is towards a future where:

- there is minimal *compromise* of water quality, quantity and physical structure of the water environment to facilitate development of the area
- the aquatic biodiversity of the catchment is maintained and extended
- improvements continue to be made to existing discharges, meeting appropriate standards
- an agricultural and forestry system develops which reduces the risk of diffuse pollution and improves the physical habitat of rivers and wetlands for wildlife
- peoples' enjoyment and appreciation of the river system continues to grow
- there is minimal risk to people and property from flooding
- development of public water supply is managed to minimise environmental impact.

Establishing strong Environment Agency involvement and links with local communities and their representatives is seen as essential so that local views are respected in future development decisions. It is important that local planning authorities include policies in their local plans which protect and enhance the needs of the environment.

## 1 INTRODUCTION

This is the Second Annual Review of the Seaton, Looe and Fowey Action Plan which was published in 1996. It summarises progress made with actions. Previous publications relating to this catchment contain more background detail, and this Review should be read in conjunction with these publications:

- Seaton, Looe & Fowey Catchment Management Plan Consultation Report - December 1994
- Seaton, Looe & Fowey Catchment Management Plan Action Plan - January 1996
- Seaton, Looe & Fowey Catchment Management Plan First Annual Review - February 1997

### 1.1 The Environment Agency

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

We provide a comprehensive approach to the protection of the environment by combining the regulation of air, land and water into a single organisation. We cannot work in isolation, but seek to educate and influence individuals, groups and industries to promote best environmental practice, and develop a wider public awareness of environmental issues.

Our Vision is :

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

We will :

- *protect and improve the environment as a whole by effective regulation, by our own actions and by working with and influencing others*
- *operate and consult widely*
- *value our employees*
- *be efficient and businesslike in everything we do*

Our Aims are :

- *to achieve significant and continuous improvement in the quality of air, land and water, actively encouraging the conservation of natural resources, flora and fauna*
- *to maximise the benefits of integrated pollution control and integrated river basin management*
- *to provide effective defence and timely warning systems for people and property against flooding from rivers and the sea*
- *to achieve significant reductions in waste through minimisation, re-use and recycling and to improve standards of disposal*
- *to manage water resources to achieve the proper balance between the needs of the environment and those of abstractors and other water users*
- *to secure, with others, the remediation of contaminated land*
- *to improve and develop salmon and freshwater fisheries*
- *to conserve and enhance inland and coastal waters and their use for recreation*
- *to maintain and improve non-marine navigation*
- *to develop a better informed public through open debate, the provision of soundly based information and rigorous research*
- *to set priorities and propose solutions that do not impose excessive costs on society*

We do not cover all aspects of environmental legislation and service to the general public. Your

local authority deals with all noise problems; litter; air pollution arising from vehicles, household areas, small businesses and small industries; planning permission (they will contact us when necessary); contaminated land issues (in liaison with ourselves); and environmental health issues.

## 1.2 The Environment Agency and Catchment Management Planning

Catchment Management Plans (CMPs) produced by the NRA will continue to be called CMPs, and subsequent reviews will focus mainly on water related issues. This will be the case with this Second Annual Review of the Seaton, Looe and Fowey CMP.

Any actions previously attributed to the NRA have now been taken over by the Environment Agency.

New plans published after 1 April 1996 by the Agency will be known as *Local Environment Agency Plans* (LEAPs) and these will take account of all Agency responsibilities. All CMPs will be replaced by LEAPs by December 1999.

## 2 PURPOSE OF THE ANNUAL REVIEW

An important part of the CMP process is to monitor the Action Plan to ensure that targets and actions are achieved and that the plan continues to address relevant and significant issues within the catchment. This report summarises the progress made since the publication of the Seaton, Looe and Fowey First Annual Review in February 1997.

## 3 STEERING GROUP

The Steering Group represents a range of commercial, local authority and environmental interests who endorse the Consultation Report and Action Plan prior to public release. They monitor the implementation of the Action Plan and provide the Agency with specific advice on the importance of issues within the catchment. They act as a communication link between the local community, the Agency and its committees and help to promote and develop initiatives of benefit to the environment within the catchment. The Catchment Steering Group are:

Mr W H Eliat	Representing
Mr S Gardiner	Riparian owner
Mr M R Gillbard	Fowey Riparian Owners Association, Salmon & Trout Association, Agency Area Environment Group
Mr O Gilbert	Cornwall County Councillor, Caradon District Councillor, Agency Regional Flood Defence Committee, Agency Area Environment Group
Mr I J Goodenough	Liskeard & District Angling Club
Mr A Hawken	Riparian owner, Bodmin Moor Preservation Society, NFU
Mr J H Hooper	Hill Farmers, Bodmin Commoners Association
Mr A Lister	English China Clay International
Mr N Maiklem	Lostwithiel Fishing Association
Mr G Roughton	Cornwall County Councillor, Farmer
Mr A Spalding	National Farmers Union
Capt M Sutherland	Forward Planning, Caradon District Council
Mr R S Tabb	Conservation
Mr C Underwood	Fowey Harbour Commissioners
	Fowey netsman
	South West Water

## 4 SUMMARY OF PROGRESS

In addition to the specific actions that follow we carry out routine monitoring in the catchment

and our day to day activities include determining consents and licenses and giving advice to all who request it.

A number of actions identified in the Action Plan concerned high levels of metals on various streams throughout the catchment due to the natural geology. Continued monitoring of these sites is part of our routine work and they are not shown in the following tables.

### **The Effect of Abstractions and Water Supply**

Colliford and Siblyback reservoirs are used to store water for public supply to large areas of Cornwall. Water is released from the reservoirs for abstraction downstream at Restormel and Trekeivesteps on the River Fowey. The management of these reservoirs and other abstractions has an impact on the natural water environment. These impacts can be minimised by successful implementation of Operating Agreements. A review of the Colliford Reservoir Operating Agreement is underway; the new Operating Agreement is being updated to incorporate the new pumped storage scheme at Restormel.

### **Polperro Flood Alleviation Scheme**

The Polperro flood alleviation scheme was completed in 1997 and demonstrated its effectiveness during exceptional downpours in November when the scheme was used for the first time and diverted millions of gallons of floodwater away from properties.

### **Future Flood Alleviation Schemes**

Schemes at Fowey and Looe are included within the Medium Term Capital Programme. Before these schemes can be progressed each will have to be justifiable on cost/benefit grounds. Additionally the timing of the schemes will be dependant on funding provided via Cornwall County Council and MAFF, therefore the start dates included in the action tables should be considered the earliest opportunity for work to commence. Detailed consultation with affected landowners and interested bodies will take place well in advance of any work taking place.

### **Pollution Prevention**

In partnership with SWW, we completed an initial risk assessment investigation on the freshwater Fowey Catchment above the water intake at Restormel. Field visits were made in Autumn 1996 to the highest risk sites in the catchment, including industrial premises, sewage treatment works and farms. Cooperation by the owners of the sites resulted in measures being put into place to reduce risks to the intake and contingency plans were formulated. We are following up with a re-assessment of the top 25 sites, which will be completed by April 1998.

### **Biodiversity**

We are committed to maintaining and improving the biodiversity of the Seaton, Looe and Fowey catchment and will be working collaboratively with other involved groups, eg English Nature, RSPB, Local Planning Authorities and the Cornwall Wildlife Trust.

### **Development**

Through planning legislation the Agency aims to protect and enhance the environment so as to make a positive contribution towards sustainable development. We work closely with local Planning Authorities to seek sympathetic development with the environment. However, in certain situations, such as deficient sewerage and/or sewage treatment services or severe flood risk, the Agency will recommend formal development restraints.



Sustainable development does not mean environmental protection at all costs. It involves finding ways to encourage environmentally compatible economic activity and discouraging or controlling environmentally damaging activities.

### **Improvements to sewerage and sewage treatment works**

Throughout the year SWW have carried out improvements to the infrastructure at various works. A major investigation by the Agency of the effects of discharges into the Looe estuaries was completed in 1997.

### **Waste Management**

No waste management issues and actions have been identified in this catchment except licensing and enforcement which is part of our routine work.

### **Integrated Pollution Control (IPC)**

No IPC issues and actions have been identified in this catchment area except ongoing routine enforcement of authorisations.

## **5 ACTION PLAN MONITORING REPORT**

The Action Plan is the means by which the vision of the catchment is turned into reality and outlines detailed proposals for resolving the issues identified. The following tables update the progress with each issue identified in the Seaton, Looe and Fowey Catchment Management Plan Action Plan for the period January 1997 to December 1997 and in the Seaton, Looe and Fowey First Annual Review.

### **Local Environment Agency Plans**

The Environment Agency will be updating the Seaton, Looe and Fowey Catchment Management Plan into a Local Environment Agency Plan (LEAP) which will consider environmental issues over the whole remit of the Agency. This is therefore the last Annual Review of this catchment management plan. Outstanding issues will be carried forward into the new plan.

Issues & Actions	By	Cost	97	98	99	00	Future	Progress Year Two
<b>HCH (Iindane) at Looe Sewage Treatment Works</b>								
2.1. Set maximum discharge level through a revised discharge consent	Agency, SWW			o				Monitoring data indicates that the failure was a 'one-off'. Action complete.
<b>EC Bathing Water Directive standards exceeded at:</b>								
5.1. Seaton Beach and Donderry Beach. New sewage treatment works to be built at Seaton as part of SWW capital programme.	SWW	not known	o	o				The new STW has been built at Seaton and commissioning is imminent. The consent to discharge for the new works is likely to be issued by end of March.
5.2. Millendreath Beach. Review consent at holiday village.	Agency,	<2k	o					The new consent to discharge has been issued, and came into force on 1 May 1997. Action complete - no further reporting.
5.3. Negotiate extension of outfall at Millendreath Beach with owners.	Owners	not known						Construction of the extension to the outfall was completed in August 1997. Action complete - no further reporting.
5.4 Investigate bacterial loads in Millendreath Stream.	Agency	5.6k	o					Investigations completed. Actions complete - no further reporting.
5.5 East Looe. Upgrade Looe sewage treatment works  Investigate other sources	SWW  Agency	not known	o  o	o				Upgrade of works planned for late 1998. Improvements to treatment works are planned to be complete by 1999 bathing season. Initial report produced: East Looe bathing water - risk of EC bathing water failure from East and West Looe drainage and sewage systems.
5.6. Investigate bacterial loadings in East and West Looe rivers.	Agency	10.5k	o					Investigations complete, report due to be produced by March 1998.

Issues & Actions	By	Cost	97	98	99	00	Future	Progress Year Two
<b>EC Bathing Water Directive standards exceeded at: (continued)</b>								
5.8. Readymoney Cove Provide a sewage collection and treatment scheme in Fowey.	SWW	not known	o					Scheme completed. Following Bathing Water Directive failure in 1997 an investigation is planned.
<b>Possible eutrophication in the Fowey estuary</b>								
6.1 Investigate trophic status of the estuary 6.1.1 Collect data 6.1.2 Report results	Agency	27k						Previous investigations indicated that at present the estuary does not fulfil the requirements of the Urban Waste Water Treatment Directive sensitive area designation. However future progression of the investigations is still being considered, with a view towards designation as a Polluted Water.
<b>Urban Waste Water Treatment Directive compliance</b>								
39. Improvements to meet the appropriate treatment requirements of the directive have been identified for: Polperro, Bodinnick and Golant STWs and various private discharges into the Fowey and Looe estuaries	Agency SWW Owners	not known					o	Under the UWWTD improvements are planned, by 2005, for the discharges at Bodinnick and Golant and for private discharges. The discharge at Polperro has also been identified for improvements under the UWWTD by 2005, and in addition has been identified for a higher level of treatment as a local priority in SWW's Asset Management Plan.
<b>The influence of reservoirs on the Fowey system</b>								
15.2 Fishery survey of the Fowey system	Agency	10k	o					Electric fishing survey complete; data is currently being collated.
<b>Lack of knowledge of wildlife flow requirements</b>								
16.1 Consider R&D results when available and apply as appropriate.	Agency	not known						Baseline surveys have been carried out during the summer of 1997 to gather information on non-salmonid fish species, invasive weeds, mammals and birds. The survey covered 50 sites on the Fowey system, 17 on the Looe and 9 on the Seaton.
<b>Management and Operation of public water supply within the Colliford Strategic Supply Area</b>								
Model the Colliford Strategic Supply Area	Agency, SWW	20k	o	o				Further work with regard to the model flow sequences will be carried out. The pump storage scheme at Restormel is also to be incorporated into the model.
Review and revise accordingly the Colliford Reservoir Operating Agreement	Agency, SWW	10k	o	o				The revised operating agreement is being updated to incorporate the new pumped storage scheme at Restormel.

Issues & Actions	By	Cost	97	98	99	00	Fut ure	Progress Year Two
<b>Review of Regional Water Resources Strategy</b>								
Agree and audit the methods and assumptions used in the third periodic review of SWW's Asset Management Plan (AMP). Revise the Regional Water Resources Development Strategy	SWW, Agency	5k	o	o				Ongoing within the framework of the Water Resources Planning Guideline/AMP process.
<b>Current forecast deficits In public water supply</b>								
Manage Demand	SWW, Agency	5k	o	o	o	o		Continued Agency support of SWW's Efficiency Plan 'Making Every Drop Count'. Measures include metering of sprinklers and swimming pools, the distribution of 'Hippos' and customer education.
Reduce and maintain leakage to economic levels	SWW, Agency	5k	o	o	o	o		SWW's leakage remains below both the Government's mandatory targets and their own public leakage target of 15% distribution losses. Problem districts are being researched and targeted as well as other contributing factors.
<b>Understanding and improving the salmonid fishery</b>								
24.1 Develop fishery classification - a national project	Agency	not known	o	o				Fishery Classification System now implemented nationally. Action complete - no further reporting.
24.2 Set target level for fish populations	Agency	not known			o			Salmon spawning target has been calculated, and used to review Net Limitation Order for the Fowey. The target will be further refined for the Fowey Salmon Action Plan.
24.3 Gravel cleaning where siltation is limiting spawning in Draynes Valley	Agency, fishery interests	7.5k						Gravel cleaning in Draynes Valley was completed in 1997, and a trial site on the Warleggan River was undertaken.
24.4 Assess concretion of gravels in Connon Stream	Agency	2k	o					Assessment completed. Concluded to be heavily impacted by water quality problems; no further fisheries work will be carried out until the water quality has improved.
24.5 Minimise illegal exploitation of fish	Agency	Core Work	o	o	o	o		Ongoing high profile and covert intensive patrols are carried out throughout the catchment and coast. Seven coastal nets were seized in 1997 as a result of targeted patrols (all of the nets were in excess of 500 metres in length).
24.6 Validate the fish counter at Restormel on the River Fowey	Agency	59k	o	o				Considerable progress has taken place. Validation work is progressing; initial indications are that the counter is working effectively.

Issues & Actions	By	Cost	97	98	99	00	Future	Progress Year Two
<b>Establishment of hemlock water dropwort</b>								
25.1 Monitor the spread of hemlock water dropwort and remove it when it occurs on spawning gravels	Agency	n/a	o	o	o	o		Initial clearance work in Draynes Valley is complete, this will be followed by routine clearance every two years. Work has begun on the Warleggan River, one site is complete and trash dams have been removed upstream of Wooda Bridge.
<b>Protection of bass nursery areas within the estuaries</b>								
42.3 Consider proposal to designate Looe Estuary as a bass nursery area	MAFF	not known						MAFF proposals to include Looe Estuary. Still no decision from MAFF.
<b>Perceived decline in salmon catches in 1995 and 1996.</b>								
Monitor stocks	Agency	n/a	o	o	o	o		Consultation has begun with riparian owners and fishing clubs, to initiate actions to investigate and consider actions to decrease any possible decline.
<b>Lack of Information on the status of riparian habitats throughout the catchment</b>								
26.1 Carry out River Habitat Survey	Agency	1k	o					Further sites have been surveyed in 1997 as part of the National baseline survey.
26.2 Aerial photography of the catchment and mapping of land use change.	EC Life Project	not known	o					Results will be assessed following the installation of new GIS computer systems.
<b>Protecting and restoring wetlands</b>								
29.1 Identify and map wetlands	EC Life Project	not known	o	o	o	o		Undertaken as part of 26.2.
30.1 Identify target species and wetlands for restoration in accordance with UK and European initiatives	CWT other bodies	not known						The Agency contributed to CWT's purchase and management of Cabilla and Redrice Woods.

Issues & Actions	By	Cost	97	98	99	00	Future	Progress Year Two
<b>Voluntary Marine Conservation Area off Looe</b>								
38.1 Promote designation and development of management plan	Project Explore	not known		o				The Agency has contributed to interpretation boards that will be erected for the start of the 1998 season.
<b>Production of an estuary management plan for the Fowey Estuary</b>								
40.1 Produce plan	Fowey Harbour Commission	not known	o	o				Plan produced April 1997. The Agency sits on the steering group. Action complete - no further reporting.
<b>Flooding problems</b>								
18.1 Build scheme at Polperro	Agency	5m	o					The scheme is now completed. Its effectiveness was demonstrated during exceptional downpours in November when the scheme diverted millions of gallons of floodwater away from properties. Action complete - no further reporting.
18.2 .1 Pre-feasibility study of tidal flooding at Fowey	Agency	2.5k						Pre-feasibility study completed and report prepared. Action complete - no further reporting.
18.2.2 Carry out scheme		162k						o The planned start date of 1999/2000 for the works has been postponed until 2002/2003.
18.4 Tidal flooding at Looe Lerryn	Agency							o Current proposed start date for Looe flood alleviation schemes is 2001/2002. o Reviewing how funding may be progressed for this scheme.
<b>Threat of increased flooding downstream of Liskeard</b>								
19.1 Plan and regulate development	Caradon DC	Core Work	o	o	o	o		We advise planning authorities on ways of managing flood risk as part of our ongoing regular work.
19.2 Improvements to bridge at Courtneys Mill to cope with higher flows	Caradon DC	not known						Works to be funded by developers contributions. Timing of works unknown.
<b>Construction of inappropriate structures in the river channel</b>								
22.1 Prepare a guidance policy on the design and placement of croys	Agency	3k	o	o				A working group has been set up between the Agency and South West Rivers Association, to prepare guidance policy. A protocol is currently being drawn up.

Issues & Actions	By	Cost	97	98	99	00	Fut ure	Progress Year Two
<b>Removal of trash dams and trimming of overhanging trees</b>								
23.1 Prepare a guidance policy for best practice	Agency	3k	o	o				Preparation not yet started.
23.2 Removal of serious obstructions	Agency/ landown- ers	not known	o	o	o	o		Identification and removal of obstructions is ongoing.
<b>The re-development of the Lower Seaton Valley Floodplain</b>								
31.1 Control developments to minimise impact on the water environment	Caradon DC							First stage of recreational development has been completed; footpaths, ponds and a bridge have been created.
31.2 Restore floodplain and the river corridor	Caradon DC							The implementation of a feasibility study for the River Restoration Project will be discussed at a meeting between the Agency and Caradon District Council, due to be held in March 1998.
<b>Coastal defence</b>								
41.1 Prepare Shoreline Management Plan Part I: Scoping study Part II: Detailed study	lead- Kerrier DC	10k 31k	o	o				A contract to produce the draft Shoreline Management Plan has commenced and is due to be completed by end March 1999. The Flood Defence committee will then be invited to adopt the plan. A contract has been let to undertake a detailed study of coastline and to propose alternative options for the consortium to consider when drawing up the Shoreline Management Plan.
<b>Need to protect and enhance the biodiversity of the catchment</b>								
Draw up and implement Biodiversity Action Plans. Encourage and cooperate with the setting of targets for key wetland habitats and species based on the recommendation of the UK Biodiversity Action Plan.	Agency, EN, CWT, RSPB, Others	not known	o	o	o	o	o	Cornwall Biodiversity Volume 1: Audit & Priorities, 1st Edition has been published by the Cornwall Wildlife Trust.

## 6 APPENDICES

### 6.1 Integrated Pollution Control

The Agency is the statutory authority in England and Wales for regulating the largest and most complex industrial processes which discharge potentially harmful substances to air, water and land. To do this we use a system known as *Integrated Pollution Control (IPC)*.

Two lists of processes have been prescribed by regulations made under the Environmental Protection Act (1990)(Part I): Part A processes are controlled under IPC by the Agency, and operators of these controlled processes are required to have an authorisation. Authorisations also cover plant design and operation. The Agency is required to ensure that the *best available techniques not entailing excessive cost (BATNEEC)* are used to prevent release of particular substances into the environment or where not practicable to minimise their release and render them harmless. Where a process is likely to involve releases into more than one medium, we ensure that the BATNEEC principle is used to ensure that the *best practicable environmental option (BPEO)* is adopted. Consideration of BATNEEC and BPEO are, primarily, site specific.

Part B processes are controlled at a local level under a system of Local Authority Air Pollution Control (LAAPC).

Under the Water Industry Act 1991, referrals of special category effluent for discharge to sewer from processes which are not subject to IPC are managed by the Agency on behalf of the Secretary of State for the Environment.

There is one Part A processes in the catchment, Fowey Harbour Commissioners Ship Repair Yard. An Authorisation has been issued by the Agency for operations relating to the removal and application of both organotin and non-organotin antifouling coatings.

### 6.2 Air Quality

Air quality is an indicator of environmental quality; poor air quality can damage flora and fauna and buildings, and have significant effects on soils and water. Some pollutants, such as acidic gases, can also cause serious problems for those with asthma, bronchitis and other respiratory diseases.

Air pollution may be in the form of gas or particulate matter with its dispersion and dilution depending on climatic conditions. Its impact may be local, especially with regard to particulate matter which will often settle on nearby land or water, or may be global, for example, some refrigerant gases depleting the upper ozone layer, or affecting concentrations of greenhouse gases such as carbon dioxide.

The Agency will need to work closely with others if improvements are to be achieved. This is particularly important with regard to local air quality where the Agency is only one of a number of regulatory bodies, with a role in helping to achieve the governments air quality strategy.

The work of the Agency also involves authorising and regulating emissions to air from certain prescribed processes (Part A processes) under Part I of the Environmental Protection Act (1990), and regulating landfill sites and in particular landfill gas. This gas is principally a mixture of methane and carbon dioxide.

Under Part 4 of the Environment Act 1995, the Government is required to publish a national strategy for air quality including :

- *a framework of standards and objectives for the pollutants of most concern*
- *a timetable for achieving objectives*
- *the steps the Government is taking and the measures it expects others to take to see that objectives are met*

The strategy was published for consultation in the summer of 1996. The Agency will work closely with local authorities to help achieve the objectives of the National Air Quality Strategy.

In due course, air quality standards may be prescribed in regulations made by the Government and obligations placed on local authorities regarding the establishment and operation of local air quality management areas. Local authorities will have to carry out periodic reviews of air quality



in their areas. Where standards are not being met or are not likely to be met an air quality management area should be declared, known as a *Designated Area*, and an action plan produced to improve air quality.

#### **Cornwall Air Quality Forum**

The Cornwall Air Quality Forum has been formed as one of 14 pilot study areas nationwide. It is led by Camick District Council and has representation from all local authorities in the county and the Agency. The Forum has been funded by the government to:

- review and assess government guidance on air quality strategy, its appropriateness, requirements and applicability. They intend to do this through producing a strategy
- carry out assessment of monitoring techniques for PM10s (dust) at a china clay quarry site.

The pilot study and report have been completed; monitoring of a 'clean site' area is currently being carried out in the Penzance area.

### **6.3 Radioactive Substances**

The Agency is the principal regulator in England and Wales under the Radioactive Substances Act 1993. This statute is concerned with the storage, use and disposal of radioactive substances, and in particular, the regulation of radioactive waste.

The Agency regulates the accumulation, keeping and use of radioactive materials, and the disposal of radioactive material, including that from licensed nuclear sites. *Certificates of registration* are issued for keeping and using radioactive materials and *certificates of authorisation* for the accumulation and disposal of radioactive waste.

### **6.4 Waste Management**

It is the responsibility of the Agency to enforce the majority of UK waste legislation which governs the management of waste generated from household, commercial or industrial sources. Where this waste is regarded as particularly hazardous it is categorised as *special waste* and becomes the subject of a strict tracking procedure, under the Special Waste Regulations 1996, to ensure that it is disposed of at an appropriate site.

Waste from agricultural premises and wastes arising from mines and quarries is not classed as controlled waste at present and is therefore not the subject of regulation by the Agency. Consideration is currently being given by the Department of Environment Transport and Regions (DETR) into bringing these wastes within the definition of controlled wastes and therefore under the scope of Agency control.

The aquatic environment may be affected by surface water becoming contaminated as it flows over or near a site. Alternatively the ground within the site may become contaminated by the waste management activities and in turn any water percolating through the ground or the waste may pick up contaminants producing leachate.

Biodegradable wastes breaking down under anaerobic conditions will produce landfill gas, which is made up of a combination of methane and carbon dioxide with trace amounts of other organic gases and vapours. In enclosed spaces it may be an asphyxiant and poses an explosive risk. Additionally, because of its methane content it is a strong greenhouse gas.

There is a potential problem from odours or the escape of wastes from waste management sites, for example litter or fumes. A site may also cause nuisance from noise or dust. Local Environmental Health Departments have powers to control this nuisance and we liaise closely with them on these issues.

It is our duty to prevent pollution of the environment, harm to human health or serious detriment to the amenities of the locality from waste management activities. Sites are principally controlled by issuing waste management licences. The licence contains conditions on the construction, maintenance and operation of sites, and stipulate monitoring requirements where we deem it

necessary. The environment is protected by appropriate conditions which are agreed internally and circulated to external bodies as a consultation exercise prior to the issue of a licence.

Certain activities are now afforded exemptions from waste management licencing by the regulations. In general they are activities with less potential for pollution, and certain waste storage and recycling processes including the spreading of certain wastes on agricultural land for benefit. Exemptions are only granted if they will not give rise to the risk of pollution.

In the past waste management licences only related to the operational phases of any site and planning permission was the only means by which control could be exercised over closed sites. The introduction of the Waste Management Licencing Regulations (1994) under the Environmental Protection Act (1990) has changed this situation. Licences can now control the monitoring and aftercare of closed sites. Licences cannot be surrendered until the Agency is satisfied that the site does not represent a risk to the environment.

Planning for waste management is undertaken by the :

- *Environment Agency who review current and future waste generation and from this the size and types of management facilities which are required*
- *County Councils and Local Planning Authorities who are required to make provision for sufficient and adequate facilities*

### **Water Quality Reports**

East Looe bathing water - risk of EC bathing water failure from East and West Looe drainage and sewage systems. Environment Agency, 1997. COR/97/002

### **References**

- Cornwall's Biodiversity Volume 1: Audit and Priorities, 1st Edition, Cornwall Wildlife Trust, 1997
- Environment Act 1995, HMSO
- Environmental Protection Act 1990, HMSO
- Seaton, Looe and Fowey Catchment Management Plan Consultation Report, NRA South Western Region, December 1994
- Seaton, Looe and Fowey Catchment Management Plan Final Report, NRA South Western Region, January 1996
- Seaton, Looe and Fowey Catchment Management Plan First Annual Review, February 1997
- Radioactive Substances Act 1993, HMSO
- Tomorrow's Water; Water Resources Development Strategy, NRA South Western Region, April 1995, SW-4/95-1k-B-ANOQ
- Waste Management Licencing Regulations 1994, HMSO
- Water Industry Act 1991, HMSO

SW-3/98-280-E-BATD