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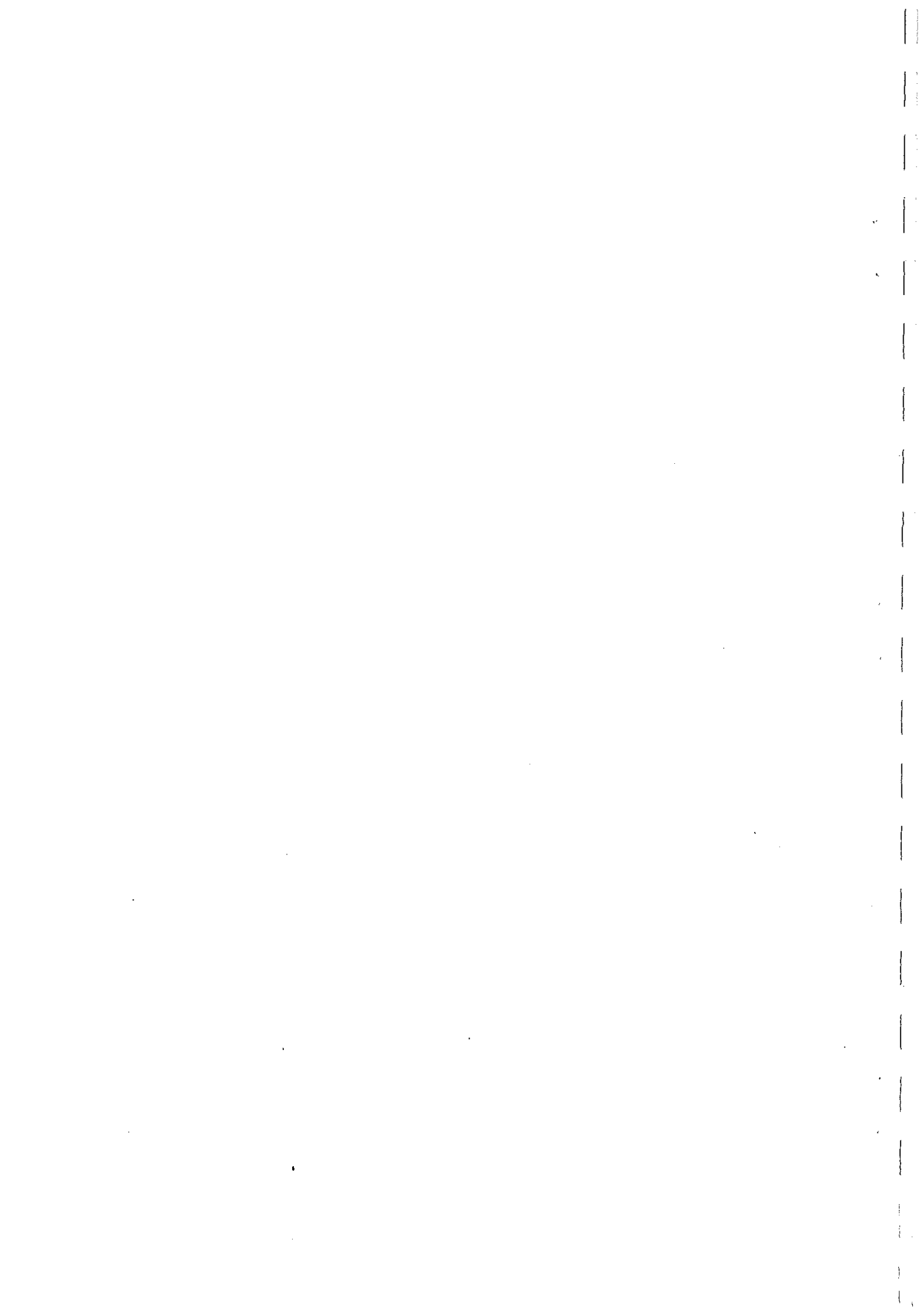
Report Prepared for
South Hams Environment Service

AVON VALLEY ECOLOGICAL ASSESSMENT
CONSULTATIVE REPORT

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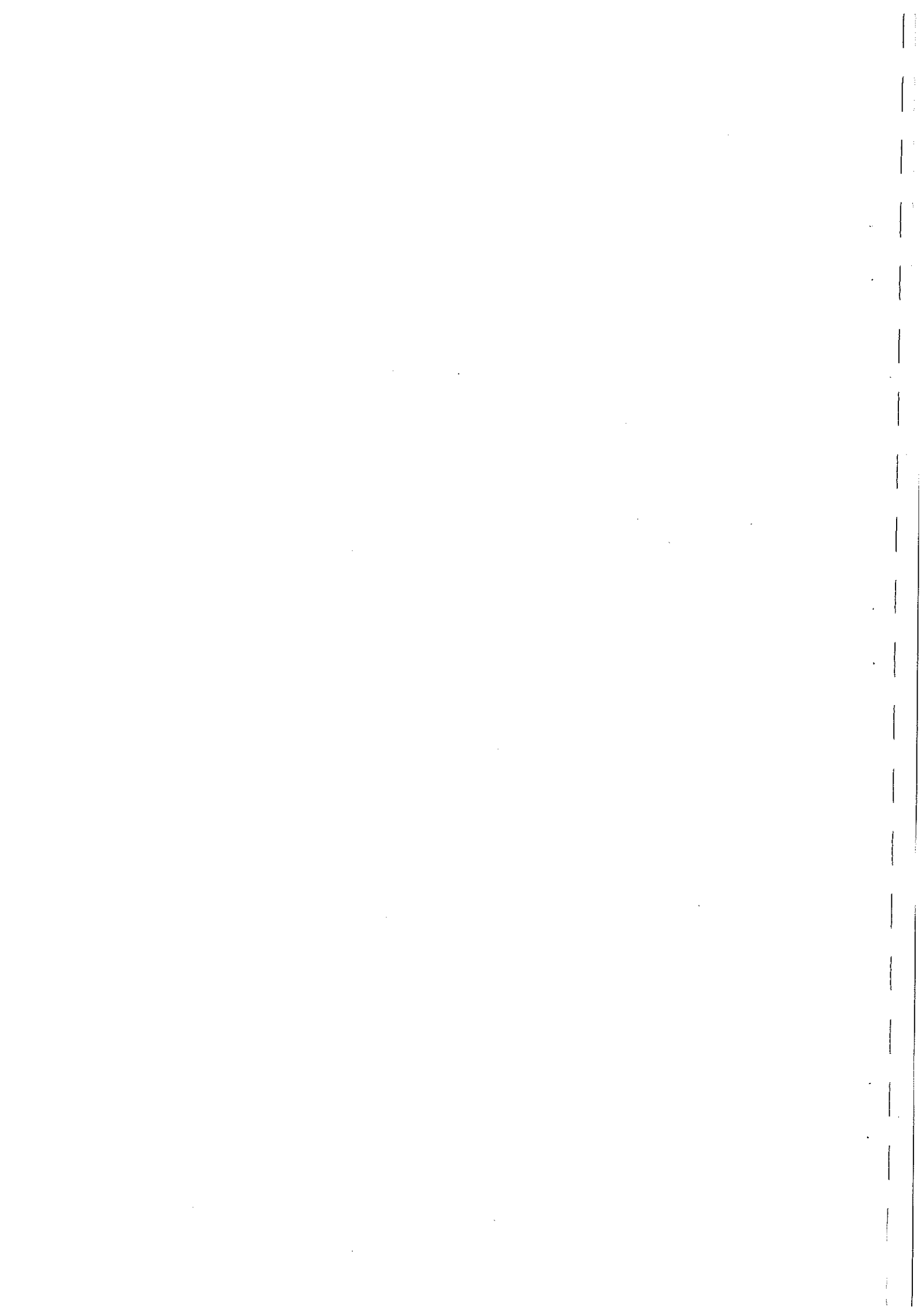




AVON VALLEY ECOLOGICAL ASSESSMENT

CONSULTATIVE REPORT

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1. INTRODUCTION - RATIONALE FOR THE STUDY

The special qualities of the River Avon Valley below South Brent are widely recognised. It is an area with a high landscape and wildlife value which is also secluded and unspoiled, and a significant part of the valley lies within the South Devon Area of Outstanding Natural Beauty.

The survey which has been carried out during the summer of 1996 has identified the within the Avon Valley where wildlife value is greatest. It has also determined where management is needed to maintain and enhance that value, and the extent to which that management is required.

The survey has concentrated on those habitats which form the river corridor, but it has also identified, by combining results with those of a survey carried out in 1992, the presence of all of the most ecologically valuable habitats in the whole catchment between South Brent and the mouth of the estuary.

The study was commissioned by South Hams Environment Service. It did not include those parts of the river or its catchment within the Dartmoor National Park, since South Hams District Council does not have responsibility for management of this upper part of the catchment.

2. AIMS AND OBJECTIVES OF THE STUDY

The overall AIM of the project was to identify the wildlife resources of the valley, between the A38 at South Brent and the mouth of the estuary, in order to:-

- determine priorities for management, in order that a strategy can be proposed.
- enable specific management tasks to be identified and, given landowners' willingness, to be carried out.

At a more detailed level, the objectives of the project were to:-

- a) Collect together and collate all current sources of information about wildlife and habitats within the study area (largely a desk study). This preliminary exercise also aimed to identify what was known about current management practices which are designed to enhance wildlife value or which are harmful to it. (Insofar as it was possible in a desk exercise it also identified needs for additional field work).
- b) Determine needs for the collection of additional data, especially for those areas which adjoin the river or which are known or are likely to be of the highest wildlife value i.e. to locate those areas where survey effort should be concentrated.
- c) Enable recommendations to be made as to those areas where survey work would need to be extended, to cover the key wildlife sites within the whole catchment in the study area.
- d) Undertake a survey of the river corridor and key habitats within the whole catchment in the study area.
- e) Provide baseline data which will at a later stage enable proposals for management to be made, as a component within an overall strategy for management of this significant part of the Area of Outstanding Natural Beauty.

3. BACKGROUND: LAND USE WITHIN THE AVON VALLEY

Agriculture and forestry are the main land uses within the Avon Valley and the operations of these industries dominate the landscape. Some quarrying has also taken place within the valley.

Post-1947 agricultural policies have led to the improvement of much of the grassland in the valley. Growing of arable crops on the higher and flatter ground is now commonplace in areas which would formerly have been pastoral. Deciduous woodlands have been replaced in many areas by more profitable conifer crops and the majority of those broad-leaved woods which remain are undermanaged. Some new planting of deciduous woodlands has taken place, encouraged by the Farm Woodlands and Woodland Grant Scheme.

The results of the agricultural and forestry improvements are evident in a loss of habitats and changes in landscape quality. On a positive note however, one disused quarry has become a haven for wildlife.

4. ECOLOGICAL SURVEYS AND ASSESSMENTS

4.1 Summary of 1992 Survey Findings

Surveys carried out in 1992 resulted in the identification of a number of County and Local Wildlife Sites.

44 were considered to warrant County Wildlife Site status
42 were considered to warrant Local Wildlife Site status

Habitat types were as follows:-

• woodland or broad-leaved plantations with areas of grassland	37
• ancient woodland (some partly replanted with broadleaves or conifers)	21
• semi-improved neutral grassland	13
• unimproved neutral grassland (with marshy areas, scrub or woodland patches)	13
• semi-improved neutral grassland and marshy grassland	6
• sand dune/coastal grassland and scrub	4
• saltmarsh, reedmace swamp	2
• improved and semi-improved grassland with brackish ditches	2
• flood meadow	2
• estuary	1
• old orchard	1
• hedges	1
• other	1

It follows, therefore, that many of the more interesting and valuable wildlife sites in the valley were identified and surveyed in 1992. This survey did not, however, cover the river corridor and all the sites of wildlife value along its length. It was also known that a number of inaccessible terrestrial sites within the catchment were not surveyed at that time.

4.2 Summary of 1996 Survey Findings

The purpose of the 1996 survey was to examine the river below South Brent and to locate inaccessible and previously unsurveyed sites in the remainder of the catchment. A series of the most recent colour aerial photographs of the valley were examined and 88 locations (in addition to the estuary and the River Avon itself) were identified as being of potential value or interest.

The use of colour aerial photos is a very valuable technique, in that it enables rapid remote location of sites of potential value thus enabling the survey team to concentrate their finite time resources on those sites which are most likely to prove rewarding.

Having said that, some of the sites located by use of aerial photographs proved to be of little interest when surveyed on the ground - for example, a number had been agriculturally improved since the photos were taken. The survey team is confident, however, that the vast majority of the valuable and interesting wildlife sites in the Avon valley below South Brent have now been identified and surveyed.

The results of the survey carried out in 1996 can be summarised as follows. (An indication of management needs is also shown.)

River Avon - 13 Sections

High value

need to maintain the *status quo* in the main, but improve adjacent habitats to enhance wildlife, esp, creation of otter holts etc. 13

Small tributary valleys (with streams, wet corridors, scrub and grassland)

Poor in Value

not worthy of conservation efforts 6
pond improvements would help 1

Moderate Value

management OK to maintain *status quo* 1
maybe some thistle control

scrub clearance, hedgerow management 1

combination of management needed to maintain habitat diversity 13

High Value

combination of management needed 1

Dry acidic to neutral grassland with hedges, often on heavy soils with impeded drainage. Often partly invaded by scrub.

Poor in value

not worthy of conservation effort 18

need for increased grazing to clear scrub. Often need for regular cutting/spraying of bracken 3

Moderate value

need to reduce grazing pressure and halt use of fertiliser 4

increase grazing and clear scrub, cut/spray bracken 4
encourage more timely hay cuts 1

High value

increase grazing, scrub clearance and bracken control 1

Wet acidic to neutral grassland/mires and scrub

Moderate value	
needs for stewardship agreement	3
management OK to maintain <i>status quo</i>	1
increase grazing and scrub control	1
reduce grazing intensity and halt use of fertiliser	2
impede drainage and create ponds	1
High value	
need for stewardship agreement	1

Secondary or ancient woodlands and broad-leaved plantations

Moderate in value	
undergrazed, therefore scrub clearance and regeneration	3
recoppice, regenerate or replant, scrub control and remove alien species	4
High value	
recoppice, replant/regenerate, scrub control	1

Plantations of conifers or predominately alien broadleaves

Poor in value	
conservation effort not justified	10
Moderate value	
recoppice, remove alien plant species, create rides, clear scrub, replant/regenerate	4

Quarries

Moderate value - a range of management needs	1
High value - a range of management needs	1

Green Lanes

High value	
need to prevent outgrowing and overhang control	1

River Avon Estuary

High value - management of the estuary is the subject of a separate report produced by Devon Wildlife Enterprises as part of this project (report date 21 September 1996)

4.3 Conclusions from survey work undertaken in 1992 and 1996.

In total, 102 sites and sections of river and estuary were surveyed in 1996.

It is evident that the majority of habitats of value in this area were covered in the 1992 survey. Few sites identified in the 1996 survey are considered to be of County Wildlife Sites status, most potential CWSs having been picked up in 1992. Despite that, the 1996 survey has identified an additional 88 sites as being of some potential interest and value, in particular the 13 sections of the River Avon and a range of estuarine habitats.

5. MANAGEMENT NEEDS - RIVER CORRIDOR, CATCHMENT & ESTUARY

One of the specific aims of the project was to provide baseline data to enable proposals for habitat management to be made to landowners. The need to manage recreational use of public rights of way in the valley, particularly those running close to the river, provided another reason for survey work to be done.

Management required to maintain or enhance the wildlife and habitat value of individual sections of the river is specific to each situation. However, it is possible to identify a number of management actions which are generally applicable in the study area, throughout the river corridor. These can be listed as follows:-

- Enhance habitat diversity of grasslands and many woodlands which adjoin the river, by creating a 'buffer' zone in which wildlife conservation would take precedence over agricultural and silvicultural production.
- Allow scrub to grow up in grassland within the buffer zone and manage woodlands by coppicing and replacement of conifers with broad-leaved trees and shrubs. The aim will be to increase cover and food plants for mammals, birds and insects and other invertebrates.
- Fence off parts of the river so that stock are allowed access for drinking, but are not permitted to graze the surrounding banks. Fence off the island upstream from Newmill Bridge to allow nesting cover to develop.
- Exclude grazing stock from woodlands which run down to the river.
- Control scrub which is encroaching into wet areas and stream sides.
- Existing public access along public rights of way is not seen as detrimental and regular use helps to keep vegetation from growing over paths. Allowing dogs to run free is seen as generally harmful to wildlife. Dogs which are kept under **strict control** are, however, not a problem.

Management actions which are generally applicable throughout the remainder of the catchment covered by the study, other than in the tidal parts of the estuary:-

- Reduce grazing intensity in fields which retain at least some vestige of native grass and broad-leaved herbs species. Fields which have been resown with mixtures of ryegrass and other agricultural grass cultivars for grazing and silaging and then maintained by regular dressings of 'bag' fertiliser, would normally take years to recover the interest they would have had before the 1960s.
- Encourage the shutting up of fields for conservation of late hay crops and significant reductions in the use of 'bag' fertiliser..
- Prevent uncontrolled spread of thistles and scrub into fields which are too steep or wet to warrant economic management by grazing. Re-introduce grazing of neglected grassland by sheep or ponies to prevent scrub encroachment.

- Fence stream sides and wetland areas to prevent excessive poaching.
- Create and maintain ponds in those wet valleys which do not already support a diverse range of wetland plants. Encourage owners not to drain wet areas.
- Maintain hedges throughout the valley, since these often provide the only habitats of value to a range of plants and animals in areas of arable and improved grassland farming.
- Manage woodlands to remove conifers when they reach crop age, to be replanted with broad-leaved tree species.
- Control sycamore invasion in woodlands throughout the valley in order to allow native species to regenerate. Do not replant beech as a woodland tree species within the valley. Encourage the use of wild cherry and small leaved lime in future plantings.
- Prevent conifers from shading the river and maintain a greater proportion of coppice, with fewer standards within woodlands, in a river corridor of say 30 metres wide on either bank.

Management actions which are generally applicable throughout the tidal parts of the estuary:-

- Introduce and enforce a speed limit of four knots to apply throughout the year in the estuary upstream of a line drawn on the map between Mount Folly and the tip of Bantham point. The only exception to this rule would be the use of a recognised safety boat whilst it was being used to proceed to or from an incident.
- Request drivers to remain in their cars while using the tidal road between Aveton Gifford and the car park near Ford, to reduce disturbance to birds feeding in the upper estuary.
- Encourage the replanting of groups of Scots pine in woodlands or copses along the estuary, to provide future nesting sites for grey herons.
- Reduce levels of sewage pollution in the estuary and near the mouth of the River Avon.
- Prevent damage to any areas of saltmarsh and glasswort within the estuary (vulnerable to excessive power boat wake).

6. ISSUES REQUIRING RESOLUTION

It has become evident during the surveys of 1992 and 1996, that the wildlife value and landscape quality of many parts of the valley have changed since the 1950s. Availability of grant aid to promote the production of agricultural and forestry products has led to significant changes in the way in which farming and woodland management are now carried out. Whilst steeper valleys remain largely in pastoral production, reseeded with semi-monocultural cultivars and regular use of 'bag' fertilisers, has massively reduced the floral diversity of most of the valley's grasslands. The shoulders of the valley and flatter land on both sides of the catchment are used, wherever possible, for cereal production or the growing of other arable crops.

Many of the woodlands in the valley have now been converted to conifer production, to replace less economically attractive broad-leaved tree species. Generally, those broad-leaved woodlands which remain are undermanaged due to lack of an economic return. Invasion by sycamore can be seen as a threat to wildlife diversity or as a potential economic benefit; however, this economic benefit will only be realised if the extensive damage to these trees caused by grey squirrels can be contained.

The banks of the river are heavily shaded by trees for long stretches and this limits the growth of marginal vegetation and submerged plants. A policy of managing the river banks to retain and even to thicken cover, but to reduce the amount of tall overhanging vegetation could significantly boost growth of submerged, emergent and riverbank plants. Any cutting back and clearance work would have to be carried out in such a way that it enhanced the chances of successful angling and did not disturb key wildlife species. Any work proposed would have to be agreed in advance with landowners and anglers.

Use of power boats in the estuary gives pleasure to those who enjoy it, but it causes annoyance to a far greater number of people on the water and in the valley overlooking the area used. The safety of other water users in small boats is at risk while water skiing is done. Whilst there is little direct evidence that the use of power boats is damaging to wildlife, those people who enjoy quiet use of the estuary, including bird watching and fishing, would be able to enjoy their pursuits far better without the noise and wash from power boats.

Successful future management and enhancement of habitats within the valley will depend on the following:-

- a) The willingness of land and fishery owners to manage their farmland, woodlands or water in such a way that not only their own needs, but also those of wildlife and landscape conservation, are met in a satisfactory way.
- b) Since many of the necessary management operations require costs which will not provide direct economic benefits to owners, the main beneficiary, the community, will have to meet the greater parts of the costs which will be incurred. Such schemes as Countryside Stewardship, Woodland Grants Scheme, habitat enhancement and any other schemes which emerge from the reform of the Common Agricultural Policy are likely to have to bear the brunt of the necessary costs.

- c) Many of the valley's woodlands have been felled and replanted with introduced conifers. The sale of woodlands by a large forestry company provides an opportunity for woodlands near the river to be purchased by bodies such as the Woodland Trust. Felling of the mature conifer crop would enable replanting with appropriate broad-leaved species.
- d) Much of the valley's charm, and its value as a habitat for mammals like the otter, depends on low levels of recreational use. It is important that the valley remains accessible to those people who live in it or know about it already; current levels of use of public rights of way are sustainable to habitats and their dependent wildlife. However, there should be no attempt to further promote the use of the valley for recreation and walkers who exercise their dogs near the river should be requested to keep them under very strict control. If these requests do not result in co-operation, firmer measures would be necessary.
- e) Use of power boats is considered to detrimental to the quality of the lower part of the AONB. It is difficult to understand why the use of high powered boats is condoned on the Avon estuary, whilst their activities are either banned or severely restricted in the estuary of the river Erme and in the Kingsbridge estuary.

Results of this and previous surveys, indicate that the Avon estuary is just as deserving of the designation of Site of Special Scientific Interest as its neighbours. Why is no power boating allowed or condoned in the Yealm estuary, even though it is not an SSSI ? This issue requires effective management, as soon as possible, in order to overcome a less than satisfactory situation.

The results of the 1996 survey should eventually be made available to land and fishery owners whose land was examined. This will enable a dialogue to be established between those who are responsible for managing the resource and the Environment Service. Other current initiatives between the Environment Service and the Devon Wildlife Trust, may provide a mechanism for landowners to receive stewardship payments for managing their land to improve habitats for wildlife. Such management would also enhance the landscape, by providing greater diversity.

Copies of the rationale for the survey, together with its aims, were given to owners whose land and water was surveyed. The purpose of the survey was welcomed by those who were contacted, since many owners would like, given the resources, to be able to manage all or part of their land to enhance its wildlife interest and landscape quality.

The survey has helped to raise the level of awareness within the valley and it hoped that contact made with owners has generated a greater willingness for them to co-operate with SHES. Owners have indicated their willingness to be given advice, indeed many would welcome it.

Availability of resources is the constraining factor, which will determine whether the advice which the Environment Service and the Devon Wildlife Trust are able to give can be translated into the various forms of management which are so badly needed throughout the valley.

