2.4 Biodiversity Action Plans

2.4.1 Overview

The ESA scheme was established in 1987, and whilst wildlife enhancement was an objective, the key objective in the floodplain ESAs was the preservation of pastures, including marshes and flood meadows. Since the ESA scheme has become established, further initiatives have taken place to specifically address wildlife. The most important one was the publication of the UK Biodiversity Action Plan in 1994.

One of the outcomes of the 1992 Rio Earth Summit was the signing of an International Agreement on the protection and preservation of all species and ecosystems - the International Convention on Biological Diversity. This Agreement reflected global concern that human activities were damaging the natural environment. There are 150 signatories to the agreement, each being committed to the development of national strategies and programmes for the conservation and sustainable use of biological diversity.

For its part, the UK has devised and is implementing a national Biodiversity Action Plan (BAP), through which the broad strategy for achieving the aims of the International Convention are set out. The overall goals of the BAP are to enhance biological diversity within the UK and to contribute towards conserving global biodiversity. More specifically, the aims of the Action Plan are to enhance populations and natural range of native species, habitats and ecosystems, and to protect endangered and threatened species and habitats of both international and local significance. In addition, the BAP aims to restore habitats and ecosystems that have been damaged by human activity.

The BAP also works to complement existing conservation legislation, particularly the Bern and Bonn Conventions, the EC Directive on the Conservation of Wild Birds, the Wildlife and Countryside Act and the EC Habitats Directive.

An immediate outcome of the BAP was the setting up of the UK Biodiversity Steering Group which prepared the schedule for achieving the Plan's objectives. This group set quantifiable targets for both species and habitats, as well as monitoring the progress of attaining these targets. The biodiversity process is now coordinated by the UK Biodiversity Group. Interests represented on the Group include central and local government, statutory nature conservation agencies, industry, scientific and academic institutions, farming and land management and leading voluntary conservation bodies. The group is divided into four country groups representing England, Northern Ireland, Scotland and Wales.

The UK Biodiversity Steering Group recommended that reports on progress should be made every five years with the first report due in 2000. The intention of this study was to assist in this process and determine the extent to which ESAs are able to deliver BAP and other wildlife targets. Consideration of the management prescriptions for the floodplain ESAs reveals that it is not appropriate to concentrate too much on individual species. It is more relevant to consider the contribution that ESAs make in improving habitats within the floodplains which can sustain communities of species. This is discussed further in the sections describing the interviews with EN and FRCA staff.

The UK BAP Steering Group Report sets targets for the following habitats which are relevant to floodplain ESAs:

- reedbeds;
- fens; and
- coastal and floodplain grazing marsh.

Annex 4 sets out the objectives and targets for these three habitats, comparing the national BAP targets with how they were translated into local BAP targets, and the objectives and targets set out in the Natural Area Profiles prepared by English Nature. A comparison is also made with any relevant targets for these habitats in each ESA scheme. An analysis of these tables reveals that there is no clear translation from national to local BAPs and that ESA objectives often lack specific objectives or targets to contribute to the creation, recreation, or rehabilitation of these floodplain habitats.

2.4.2 Reedbeds

Reedbeds are important wetlands which are dominated by stands of the common reed *Phragmites australis* where the water table is above ground level for most of the year. Reedbeds are very important habitats in the UK, supporting 6 nationally rare Red Data Book birds, including bitterns, marsh harriers, and feeding sites for migratory species. There are about 5000ha of reedbeds in the UK, but out of approximately 900 sites which make up this total, only 50 are greater than 20ha. This leads to critically small population sizes for the key species depending on this habitat. Reedbeds have been affected by water abstraction, land drainage and diffuse pollution in water bodies.

The Costed Habitat Action Plan has two objectives:

- identify and rehabilitate by 2000 the priority areas of existing reedbed (targeting those of 2ha or more) and maintain this thereafter by active management. The target is to provide habitat for 40 pairs of bitterns, and action should be targeted in the south-east; and
- create 1,200ha of new reedbed on land of low nature conservation interest by 2010. The target is to create blocks of at least 20ha with priority for creation in areas near to existing reedbeds, and linking the habitats wherever possible. This should aim to provide habitat for 60 breeding pairs of bitterns in the south-east.

Specific mention of ESAs having a role in achieving these objectives are made in the plan. The Suffolk River Valleys and Broads ESAs require farmers to maintain and manage reedbeds (should they choose to take up these agreements). The development of a national strategy for reedbed creation which cross-related to ESAs was proposed. Consideration was also to be given to modifying or expanding existing habitat schemes, including ESAs, to encourage and allow for the creation of 1,200ha of reedbed. There is also mention of the need to encourage sympathetic water abstraction and water level management policies.

2.4.3 Fens

Fens are peatlands which receive water and nutrients from the soil, rock and ground water as well as from rainfall. There are different types of fens depending on mineral richness, and on the nature of the water movements. Fens support a diversity of plants and animal communities and require active management such as mowing, grazing and scrub clearance in order to maintain the characteristic communities, otherwise natural succession will result in scrub and woodland forming. Fens have been lost as a result of drainage, the adoption of intensive agriculture, water abstraction and reduced management. A small total area of habitat has lead to critically small populations sizes of key species dependent on the habitat.

In the Costed Habitat Action Plans it is acknowledged that the Broads and Suffolk River Valleys ESAs play an important role in protecting fens. The required action includes the consideration of modifying or expanding existing habitat schemes and countryside schemes such as ESAs, and the preparation and implementation of WLMPs. The target is to identify and initiate rehabilitation of sites in critical need by 2005.

2.4.4 Coastal and Floodplain Grazing Marsh

Floodplain grazing marsh is periodically inundated pasture or meadow with ditches to maintain the water levels, which contain standing brackish or fresh water. The ditches are rich in plant and invertebrate species. Grazing marshes are particularly important for the number of breeding waders such as snipe, lapwing and curlew. Significant losses of grazing marsh have occurred in the last 60 years, resulting from eutrophication, neglect in traditional management, agricultural intensification and ecologically insensitive coastal flood defence works. ESAs are considered important in encouraging the management of floodplain grazing marsh.

The Costed Habitat Action Plan sets targets to:

- maintain the existing extent and quality of floodplain grazing marsh;
- rehabilitate 10,000ha of grazing marsh which has become too dry, or is intensively managed, by the year 2000. This would comprise 5,000ha already targeted in ESAs; and
- create 2,500ha of grazing marsh from arable land in targeted areas, in addition to that
 which will be achieved by existing ESA schemes, with the aim of completing as much as
 possible by 2000.

2.4.5 Habitat Action Plan Targets and ESAs

Each Habitat Action Plan (HAP) is overseen by a steering committee. When starting this study, it was assumed that the national action plans would be translated into local action plans. There would then be a framework for feedback from the local areas, where habitat restoration was taking place, to the national steering group. Monitoring progress and feedback to the relevant organisations who are expected to contribute to the achievement of targets would ensure that targets are met, or if not, highlight problems which can be addressed though alternative mechanisms. FRCA project officers who are responsible for the management of a particular ESA will require feedback so that they are able to prioritise resources to address situations where the ESA was expected to deliver a BAP target. This requires monitoring of BAP species and habitats

on a local level and early dissemination to the bodies who are responsible for implementing BAP action plans. It was anticipated that the interviews with EN and FRCA officers would make it possible to gain a more detailed understanding of how each ESA is expected to contribute to particular local or national BAP targets. However, the interviews revealed that there is no formal liaison between the staff involved in each initiative, so the mechanism by which feedback may take place is unclear. No formal BAP related monitoring is carried out within each ESA either, so the contribution of an ESA in achieving targets cannot be measured.

ESAs were set up nearly ten years before the UK Biodiversity Action Plan was published. Whilst they play an extremely important role in encouraging the preservation of particular habitats and landscape features, the management prescriptions have not been specifically designed to meet any particular BAP targets, with the possible exception of the recent fen tiers in the Broads and Suffolk River Valleys ESAs. Caution must, therefore, be taken in assessing the contribution they are making, particularly with respect to certain listed species. For example, whilst many species may be specifically listed in a Local Area Profile, their population(s) may not depend on the way that the land is managed within the floodplain ESA. Other species may indirectly depend on floodplain management prescriptions, for example, for foraging. Others will be extremely dependent on the way that the floodplain ESA is managed, both for food sources and fulfilling habitat requirements.

In some cases, Species and Habitat Action Plans specifically mention ESAs in having a role in achieving targets. If ESAs are not specifically mentioned in a BAP, this should not be interpreted as the ESA not having a role in contributing to meeting a target. It may be possible that small changes to an ESA may contribute to the protection of many species, and it was anticipated that the more detailed discussions with the local EN and FRCA officers would help in identifying such examples.

2.5 Monitoring

2.5.1 Overview

When the ESA scheme was launched in 1987, MAFF recognised the need to ensure that the scheme was delivering the desired environmental benefits. A national monitoring strategy was developed and a monitoring programme has now been established in each ESA, covering the landscape, wildlife and historical interest. The monitoring was targeted and designed according to the characteristics and the environmental objectives of each ESA. The monitoring regime set out to establish a baseline record of conditions when the ESA was launched, with which future surveys could be compared. For each ESA, an overview report was published, together with 'activity' reports covering botanical monitoring, historical monitoring and, in floodplain ESAs, monitoring of breeding waders. This section provides a summary overview of the conclusions of the ADAS reports for the floodplain ESAs.

2.5.2 Avon Valley

Environmental Monitoring 1993-1996

• The predominant land cover type in the ESA is grassland.

- A limited amount of reversion to grass from arable land under the ESA scheme occurred either on or adjoining the floodplain.
- Monitoring of breeding waders populations showed an overall decline in the sample of 29% in the number of territories between 1993 and 1996 - this was not found to be statistically significant when extrapolated over the whole ESA.
- Results of a survey of the remainder of the ESA in 1996 also showed a decline in the breeding wader population, with a statistically significant decline in numbers of snipe.
- During 1993-1996 only 2% of the ditches were maintained.

2.5.3 Broads

Environmental Monitoring 1987-1995

- There was an overall increase in the area of permanent grassland and a corresponding reduction in arable land.
- The extent of the dyke and hedgerow network remained stable.
- There was concern that hedgerows were in poor condition and would continue to deteriorate through lack of positive management.
- Populations of breeding waders were maintained rather than increased, except snipe.

Monitoring of Breeding Waders 1993-1995

- Statistical analysis shows that there was no significant change in numbers of breeding waders from 1993-1995.
- The apparent declines in populations of lapwing and snipe, cited in the RSPB report, are of some concern, but may be at least partly related to climatic variation between the survey years.

Landscape Monitoring 1987-1995

- The results of these surveys indicated that there was an overall increase in the amount of permanent grassland and a corresponding reduction in arable land, mainly on land under ESA agreement.
- Other changes on agreement land included decreases in fen and reedbed and corresponding increases in structurally diverse grassland. This was balanced by increases in fen and reedbed, mainly on land not under ESA agreements.
- Areas where water levels had been raised to cause seasonal flooding had maintained their diverse wetland character.

 There was evidence that key landscape elements such as hedges and dykes were in poor condition, through insufficient management.

Botanical Monitoring of Dykes 1987-1994

- The most common communities recorded were those in the eutrophic and the brackish/floristically impoverished categories - although the percentage classified in these groups decreased during the monitoring period.
- Relatively few dykes supported vegetation characteristic of the more valuable mesotrophic and meso-eutrophic endgroups - but there had been an overall increase in the percentage classified as these groups during the monitoring period.
- There was a slight decrease in the percentage of endgroups characteristic of eutrophic conditions. The percentage of dykes in the brackish/impoverished endgroups decreased on reseeded arable land and on peaty soils, attributable to dyke management, water depth and water quality. Dykes on clayey soils showed changes that suggest an increase in overall salinity, particularly in dykes close to rivers. This detrimental change may be because of river water intrusion.
- Most of the changes detected suggested that the overall quality of vegetation in the dykes has been maintained or improved, but there are concerns about the salinity problems in dykes in some areas on clayer soils.

2.5.4 Somerset Levels and Moors

Botanical Monitoring of Grassland 1988-1995

• There is no evidence of increased conservation value on the grassland monitored from a botanical perspective.

Monitoring of Breeding and Wintering Birds 1987-1995

- There was an overall increase in the wader population over the period of the ESA scheme of 29% in total wader territories, resulting from increases in all species monitored.
- The parts of the site that became Raised Water Level Areas (RWLAs) supported higher densities of breeding waders than the surrounding parts in 1992, before RWLAs were initiated.
- There was no significant change in wintering bird populations.

Landscape Monitoring 1987-1995

- From 1989 to 1995 there was a substantial increase in the total length of ditches classified as 'wet and clear', largely at the expense of those classified as 'wet and choked'.
- There was also an increase in the length of infilled ditches.

Environmental Monitoring 1987-1995

- There was an overall increase in the area of arable land within the ESA, at the expense of grassland, on non-agreement land.
- The grassland communities showed a consistent direction of change, representing a shift towards adaptation to wetter conditions.

2.5.5 Suffolk River Valleys ESA

Botanical Monitoring of Grassland 1988-1996

• The results indicated that, generally, the grassland monitored had developed beneficially in terms of its botanical interest whilst it was in ESA agreement.

Environmental Monitoring 1988-1996

- The major change in land cover involved the conversion of over 2,800ha of arable land to grassy vegetation, over 90% of which occurred on agreement land.
- Few signs of positive ditch management were observed, but their total extent was maintained.
- The quality of the dry grassland was maintained, and in some locations, enhanced by grazing and other forms of management under the ESA scheme.

Landscape Monitoring 1988-1996

• There was still great scope for more positive management of hedgerows through replanting and coppicing.

2.5.6 Test Valley

Botanical Monitoring 1988-1995

• The results of the survey suggest that the quality of all grassland communities is being maintained on agreement land, but no enhancement was evident in any community.

Landscape Monitoring 1988-1996

- The condition of ditches, which are a key boundary feature of this ESA, was found to have deteriorated both on ESA agreement and non-agreement land. This result may have been exaggerated by the extremely dry weather conditions over the monitoring period.
- The scheme has been successful in enhancing the landscape of the ESA by the reversion of arable land to grassland, linking previously fragmented grassland.

2.5.7 Upper Thames Tributaries

Environmental Monitoring 1994-1997

 Monitoring of breeding waders from 1994 to 1997 showed an overall decline within the ESA, which was undoubtedly influenced by a very dry Spring in 1997.

2.5.8 Breeding Waders

The Floodplain ESAs are particularly important for wading bird species such as lapwings, redshank and snipe, all of which rely on wet grassland for a breeding habitat. The significant declines in these bird populations was one of the triggers for addressing the loss of grassland by designating the floodplains as ESAs. These are the only wildlife species which have been monitored for the ESA scheme, carried out by ADAS and RSPB in collaboration. The RSPB carried out surveys of breeding waders and wildfowl in the Norfolk Broads and Suffolk River Valleys ESAs in 1995 and 1997 respectively. Some of these data are set out in Table 2.10, together with data for the remaining regions taken from the ADAS monitoring reports.

Table 2.10 Changes (% increase or decrease) in Breeding Wader Populations in Floodplain ESAs

| ESA | Date | Species | | | | |
|-----------------|-----------|------------------|--------------------|--------------------|--------|-------------------|
| | | Lapwing | Snipe | Redshank | Curlew | Oyster Catcher |
| Broads | 1987-1995 | -14.2% | -39.8% | -2.5% | - | 37.0% |
| Suffolk | 1988-1997 | -53.0% | -82.1% | -5.9% (-23.0%)+ | - | -7.4% |
| Somerset | 1987-1995 | 48.0% (6.8%)* | 13.0% (-47.7%)* | 5.0% | 19.0% | 94 |
| Avon | 1993-1996 | -13.2% | 0.0% | -51.1% | ± | 44- |
| Test | . No Data | | | | | |
| Upper Thames | 1994-1997 | -34.0% | -65.0% | -46.0% | -38.0% | |

^{*} The increases in Lapwing and Snipe are largely due to increases at an RSPB site (West Sedgemoor). If this site was discounted from the overall survey results, the overall increase in Lapwing in the ESA (in brackets) was lower and there was a decline in snipe.

In the Broads, decreases in snipe and lapwing occurred despite a trebling in the area of grassland managed as reserves, a 42% increase in the area of privately owned land under Tier 2 agreements, and the introduction of Tier 3 prescriptions. Populations have only been maintained at existing levels or increased on grassland nature reserves. The reasons for the decline in snipe are unclear, weather conditions may have been a contributory factor. Conditions during the 1988 sampling period were wet, whereas in 1995, they were dry. There was also a drought during the intervening period. The overall decreases reflect the declines in breeding throughout lowland Britain since the 1960s. The RSPB assessed populations of breeding waders against the ESA tier

Grassland declines (in brackets) were more significant than on saltmarsh.

under which the land was managed. In 1995, grassland under Tier 1 agreement was generally poorest for breeding waders. The largest proportion of each population occurred on privately owned land under Tier 2 agreements, with overall densities above average for the ESA as a whole. Tier 3 agreement land only accounted for 50ha, but snipe were concentrated at high density on at least two sites. At the time, uptake of Tier 3 was minimal outside reserves and SSSIs.

Declines in Lapwing and Snipe have also been observed in Suffolk. In the 1997 RSPB survey, low rainfall and a reduction in habitat quality, through the lowering of water levels, were thought to be the most likely explanations (this is also the offered explanation in the Upper Thames Tributaries Report). Whilst breeding wader numbers have remained approximately stable on saltmarsh, considerable declines have occurred on grassland. Wader densities were generally highest on Tier 2A and lowest in Tier 1. Densities on Tier 1 were lower than on non-ESA agreement land. Breeding waders were also mostly absent from upper river valleys. The RSPB report argues that Tier 1 is of little benefit to breeding waders and that Tier 2A can produce a highly suitable habitat and should be encouraged whenever possible.

In the Somerset Levels and Moors, following a substantial decline prior to the establishment of the ESA in 1987, numbers of snipe have continued to decline in all sites, bar one. West Sedgemoor is an RSPB reserve which has experienced significant increases in the numbers of snipe. Lapwing numbers also declined up to 1987, but population levels have stabilised since, at between 170-180 territories. A dramatic increase was observed in 1990, associated with exceptional spring flooding. According to the ADAS Monitoring Report, the Somerset Levels and Moors ESA is considered to have met the objective of maintaining the populations of breeding and wintering birds within the ESA. The raised water level tiers have not been established long enough to result in observable increases in bird populations.

Some caution is required in interpreting these results. Firstly, different monitoring methodologies may have been used in different years and ESAs. Secondly, a lack of a general pattern across each ESA was often observed, with changes restricted to relatively few sites. The Somerset Levels and Moors ESA is one example where one site (West Sedgemoor) may account for significant increases in numbers of birds, whereas less significant increases or even declines may have been observed on other sites within the ESA.

It is difficult to draw any conclusions from these data, and Table 2.10 shows a simplified comparison. One major factor accounting for the continued overall declines in bird numbers is considered to be that water levels within the ESAs are not high enough. It is very likely that the presence of standing water at important times of the bird's breeding cycle, especially in April, will result in higher bird densities in an area, since it offers the best habitat. A lack of water or other favourable conditions means that migrating birds are forced to move on and locate other suitable habitats. For example, Otmoor is an important site for breeding waders within the Upper Thames Tributaries ESA and continued low water levels, together with declines of bird numbers are a cause for concern. These can only be addressed properly with an effective WLMP.

Water levels are not the only issue, as it is also necessary to secure sufficient areas of land under the higher tiers, particularly those requiring raised water levels. This in turn will drive landowner demand that WLMPs deliver sufficient water to enable flooding of land at the correct time of the year. This has really only been achieved in the areas owned by RSPB. The most success in stabilising breeding wader populations has been in Somerset. This may reflect, not just the success on West Sedgemoor, but also that this ESA has the most land under the wet permanent grassland

tier compared to the other ESAs. In comparison, the Broads, which was designated at the same time, only has 3.5% of land within the ESA under the wet permanent grassland tier.

2.6 **Interviews**

RPA held face to face interviews with the EN and FRCA officers who are responsible for each floodplain ESA, as shown in Box 2.2. Interviews were carried out using a standard questionnaire for EN and FRCA (see Annex 5 of this report).

Box 2.2: Interviews Undertaken

Suffolk River Valleys:

Helen Smith EN:

6 December 1999

Tim Sloane FRCA:

10 January 2000

Somerset Levels:

Richard Bradford EN:

15 December 1999

Richard Andrews FRCA: 16 December 1999

Upper Thames Tributaries:

Keith Payne EN:

17 December 1999

Alistair Helliwell FRCA: 20 December 1999 (Also site visit)

Avon and Test Valleys:

Ian Davidson-Watts EN: 21 December 1999

George Gittins FRCA:

22 December 1999

Norfolk Broads:

Clive Doarks EN:

12 January 2000

Quentin Hill FRCA:

7 January 2000

Sections 3 to 7 provide a summary of the interviews carried out in each ESA.

3. Suffolk River Valleys ESA

3.1 English Nature

3.1.1 General Issues

EN and FRCA have annual liaison meetings, but there is no regular day to day contact on ESA management issues. However, EN reported that they were happy with the way FRCA were managing the ESA. Farmers obtain advice on the implementation of management prescriptions from FRCA. EN has become more involved in the management of land which is designated a SSSI and provides grant aid for capital works. In the Suffolk River Valleys, 80% aid is given for ditch management works. This rate of payment is considered vital as an incentive, if important ditch communities are to be maintained. The main issue, as far as EN are concerned, is that there needs to be an increase in payments for uptake into higher tiers. The ESA can only contribute to biodiversity targets, if more land is secured under the higher tier agreements. There needs to be a sufficient incentive for landowners to consider these agreements as a serious option.

3.1.2 Current Trends

It was considered that although ESAs had a generally positive role in slowing down or even reversing the arable use of land within the Suffolk River Valleys, more land needed to be entered into the wetter tiers if the ESA was to make any contribution to biodiversity in the area. In order to achieve any biodiversity returns, the land needs to be farmed or managed under at least Tier 2A management prescriptions. However, only 4.4% of the total land under agreement is wet permanent grassland or marshland. Tier 1 (which accounts for 73.6% of the land under agreement) does not deliver biodiversity returns. EN indicated that the ESA prescriptions had more of a landscape bias than for wildlife conservation, but recognised that FRCA were striving to secure more land in the wetter tiers. However, it is important that the land is suitable before seriously considering conversion into wetter tiers. This depends on whether there are sufficiently high water levels in the proposed areas. There is also an issue about whether there is enough stock to ensure that the land is adequately grazed.

There is evidence of areas of arable land being converted. This may reflect an increase in the payments, or there may be other economic factors influencing landowner decision making, for example a downturn in farm incomes. Land has also been purchased by conservation bodies, for example, Dingle Marshes was bought by RSPB and ESA payments fund a site manager.

Where SSSIs exist in ESAs, payments can be made by EN for positive management. There can be some confusion on the part of landowners if there is more than one agency involved in conservation schemes which involve different payment rates. Consent is required from EN to do any works within the ESA if the area is designated a SSSI within the ESA, in accordance with the Wildlife and Countryside Act 1981. The FRCA project officer sends plans to EN for approval.

3.1.3 Water Level Management Plans (WLMPs)

EN do not have close involvement with the preparation of WLMPs. Prime responsibility for this falls to the Environment Agency (EA), who were reported to be implementing this function effectively with the Internal Drainage Boards (IDBs). EN indicated that water levels needed to be raised to facilitate uptake of the wet grassland tier. The EA conservation department are

considered to be playing an effective role in this respect, drawing up plans for ditch water levels and implementing appropriate water control structures where required. The IDBs have strong landowner representation, and are funded through land drainage rates. They are involved in the preparation of the management plans, but the EA play a key role in achieving a balance between different needs. However, there did not seem to be a clear interaction between the the WLMPs and the requirements for ESA wet grassland tier.

3.1.4 Uptake of ESA Agreements

Farming in the area was reported to be undergoing a difficult time. Trends indicate that there may be more interest in the wetter tiers of the ESA. Schemes do offer extra income, and if the livestock industry continues to be under pressure, uptake of agreements may increase. Some improvements to the management prescriptions have been made to encourage renewal of agreements after 10 years. These improvements were based on experience with implementation. However, there is no monitoring in place to be able to judge what sort of contribution the land under agreement is making to wildlife in the area, other than RSPB surveys of breeding waders and waterfowl.

3.1.5 BAP Targets

The difficulties of implementing HAP targets was stressed. This ESA is subject to future sea level rises. Gain of one habitat is usually at the expense of another. Sea level rise will result in coastal grazing marsh being replaced by salt marsh. The area is in a constant state of flux. The EA have drafted Estuary Strategies, where it is proposed to create reedbeds out of grazing marsh. It is anticipated that these will contribute to the BAP Costed Action Plan targets for these habitats.

3.1.6 Monitoring

SSSIs are monitored by EN every three years. BAP species and habitats monitoring is not carried out specifically. SAPs which are relevant to the area include bitterns, water voles, otters, and the silver studded blue butterfly. Intensive monitoring takes place in the nature reserves owned by RSPB, but apart from the ADAS studies commissioned by MAFF, no wildlife monitoring is carried for the purpose of assessing the performance of ESAs. A database on coastal birds has been developed, and species records may be available from the Suffolk Records Centre. Other than these, there appears to be only anecdotal evidence.

With respect to the setting of local BAP targets, EN comment on them to confirm if they are reasonable. Although EN have a role in the local steering group, there is relatively little feedback to the officers responsible for the ESA.

3.1.7 The Future

Coastal Defence/Flood Defence Habitat Management Plans (CHaMPS) are being considered for a number of large areas of international conservation importance. This scheme is being piloted in Suffolk. A record is being kept of habitat loss, identifying areas for re-creation. Farmer involvement in this will be crucial, and the conservation strategy will be closely linked with coastal defence. Saltmarsh will go into Countryside Stewardship, and payment levels may need to rise to achieve targets. It is important that monitoring is more closely co-ordinated. ESAs may

become a key mechanism for CHaMPS, especially with respect to coastal grazing marsh. However, more arable reversion is still required.

3.2 Farming and Rural Conservation Agency

3.2.1 General Issues

FRCA confirmed that annual liaison meetings take place with EN to discuss all conservation issues, including those relating to the ESA. EN has become more involved in the cases where a SSSI exists within an ESA, as they may provide supplements to support further management works where necessary. FRCA have more day-to-day contact with the Suffolk Wildlife Trust and the RSPB, who are major landowners in the ESA. Whilst there is no statutory requirement to involve county Wildlife Trusts, FRCA welcome their input, particularly on cases such as sensitive ditch and dyke management regimes to protect water vole populations. Suffolk Wildlife Trust undertake surveys in advance of works to identify areas which should be left alone. FRCA also have involvement in the Suffolk Coasts and Heaths Project Group.

The Suffolk ESA was established in 1993 and reviewed in 1997. Changes were announced in 1997. At the last payment review, one major improvement was that payments for ditching went up from £30 to £80 per year. Water level supplements and buffer strips were also added as 'boltons'. It was noted that although these new additions were beneficial for conservation, they are difficult to implement in practice. Many landowners who wished to enter into agreements for these were doing this anyway. It is difficult to persuade more commercially minded farmers and landowners to participate. The current payments are £55 per hectare and it was considered that payment levels need to be increased to attract other farmers. Another 'bolt-on' is grassland margins around arable fields, but this is being taken over by the Arable Stewardship Scheme.

3.2.2 Water Level Management Plans

A water level supplement has been added, at the request of EN, RSPB and Wildlife Trusts. Water Level Management Plans are in place, but FRCA do not consider that they make much difference. There is heavy abstraction, both by farmers and by British Energy (for a nuclear power plant), and this needs to be taken into account. The EA are assisting with WLMPs, and if farmers or other landowners require consents to put in dams or ditches in water courses, charges for impounding licences have been waived within the ESA to facilitate uptake of agreements. The ESA scheme is compatible with EA objectives. There are some problems with the preparation of the WLMP, but it provides a forum for discussing the different needs and concerns of landowners, which can often be resolved.

3.2.3 Farmer Uptake

There are currently about 560 agreements. Uptake is dependent on whether the prescriptions are considered workable by farmers, some of whom are cautious about the bureaucracy. Large landowners do not appear to be enthusiastic about the scheme, apart from British Energy who are keen to participate. Decisions are economically driven, apart from landowners such as RSPB who will manage the land for wildlife anyway, whatever the incentives. FRCA were keen to emphasise that the ESAs are an agri-environment scheme and that the land needs to be farmed. However,

farmers who enter land into agreements want some return, either in terms of aesthetic value, conservation status or financial returns.

FRCA view this ESA primarily as a landscape ESA, concentrating primarily on grass and grazing. There were no conservation plans in place when the ESA was designated in 1988. However, positive works have been carried out for wildlife, including scrub removal for breeding waders, ditch management which is compatible for water vole populations, and raising water levels. FRCA stressed that water levels should be raised slowly so that wildlife can adapt to the changes. Conservation plans are in place, but management is carried out on an ad hoc basis and not within a wider area strategy. FRCA is prepared to accept derogations to alter grazing regimes in certain circumstances, for example, changing grazing regimes to allow wildflower populations to thrive.

FRCA is considering how best to target resources, either by securing more land in the higher tiers or through more conservation plans. About 7500ha is under Tier 1 (73.6% of total area under agreement), and this, theoretically, provides an important base for securing land into higher tiers. About 1500ha is under Tier 2 agreements (low input grassland), which accounts for 15.3% of the total area under agreement. However, the statistics show that only 440ha are under Tier 2A agreement to maintain wet grassland. FRCA pointed out that it is pointless having land under Tier 2A management prescriptions if it is not near water, or water levels are not high enough. Long dry summers and abstraction can dry the pastures significantly, and different plant communities may result through colonisation, and depending on their conservation status, may need to be taken into account. Where there are applications to place land in Tier 2A agreements, FRCA has considered whether or not the prescriptions can be met before agreeing. FRCA acknowledged that Tier 1 grassland was of little conservation value, although this may depend on the grazing regime. FRCA are willing to add on conservation plans wherever possible, but again, their view is that this is not a conservation led ESA.

A new Fen Tier has been introduced and although there has been uptake by RSPB, Wildlife Trusts and British Energy, most farmers are not interested. EN will fund capital conversion costs for fen establishment and the ESA payments will take over. It was noted that the areas that farmers were interested in converting were small, and that in these cases it may not be a worthwhile exercise. EN may also consider providing additional funding on important sites such as on Eastern Broad where the landowner is struggling to achieve Tier 2 prescriptions and is making a loss of £60 per hectare in the process.

There is also an issue of flood defence in Suffolk. There are a range of options which could be taken, ranging from holding the line, which is agreeable to farmers, to a 'do-nothing' option which will generate more saltmarsh. Another option is to delay the do-nothing option, holding the line for the present, and then allow retreat. No compensation is envisaged under these scenarios, and they could have different implications for the ESA.

3.2.4 Monitoring

The ADAS monitoring reports were used in the last review. Other organisations have carried out bird and hedgerow monitoring. FRCA have no direct involvement in monitoring and are not involved in BAP steering groups. It was commented that it was difficult to set targets if there were no baseline data to work against.

3.2.5 The Future

There is currently a mosaic of habitats, whereby woodland and scrub breaks up breeding wader habitat. Fen habitats are being managed by RSPB for bittern and reed warblers, but this is labour intensive, and farmers and other landowners may not be prepared to enter land into this tier.

FRCA consider that future prescriptions need more flexibility. There also needs to be some clarification of how stewardship schemes fit in with the ESA. FRCA is also of the view that resources should be concentrated on improving the land that is already under agreement. There may be a case for limited expansion to follow river valleys, for example, further up the River Orwell. Some expansion could be catered for via the Countryside Stewardship Scheme, since there is demand from landowners who are just outside the ESA boundaries.