4. Somerset Levels and Moors ESA

4.1 English Nature

4.1.1 General Issues

There are 2.5 people working full time at the Taunton office. One is on secondment from RSPB to help with the ESA raised water level areas. EN work very closely with FRCA, having contact on a daily basis. Joint visits are carried out on a weekly basis. Where joint visits are not carried out, FRCA report back very shortly afterwards because there has been a long history of EN activity and management schemes in the Somerset Levels and Moors, and there has been a strong move from EN management agreements into ESA agreements, since the scheme started in 1987. The high concentration of SSSIs in the area led to the designation as an ESA, and the ESA has done much to stabilize a situation of habitat degradation in the area.

FRCA consult EN on minor matters of policy, and EN raise issues with the FRCA project officer which need to be tackled at the five year review stage. Usually, important issues are raised informally well before the formal consultation stage. MAFF rely heavily on FRCA on drafting policy, and in turn FRCA rely on EN to support them on conservation issues.

There are landscape issues which need to be balanced with conservation needs. The ESA has landscape objectives in addition to ecological and archaeological conservation. NGOs are consulted during the review process, but inevitably, the wildlife issues are priority on most agendas. The landscape has changed dramatically over the last 20 to 30 years. Trees and scrub have increased through lack of management in former wet pastures and scrub management has been requested by EN. EN state that SSSI and Ramsar statutory designations should override other designations and that if the description of the area is a semi-open moor, then recent trees and scrub should be removed. EN recognises the importance of maintaining historical features within the ESA landscape. This issue needs to be considered at the next review. Essentially, the concerns are that scrub and trees can choke ditch lines and make water level management difficult. They also provide a habitat for predatory birds, and this is contrary to the conservation needs of breeding waders.

4.1.2 Wildlife Enhancement Schemes

In this area, the Wildlife Enhancement Scheme (WES) exists to top up in situations where further positive management needs to be carried out in addition to the management specified in a particular tier. The WES payment is typically of the order of £30 per hectare. EN are keen to move away from compensation and encourage payment for positive works. This approach is needed to encourage a greater response and flexibility for more active management of sites and make it possible to carry out site specific management to meet wildlife conservation targets. It was commented that farmers and other landowners are reluctant to deal with two different bodies who have several functions. Landowners are inclined to claim as much as they can for positive management, taking advantage of the situation where there are many SSSIs within the Somerset Levels ESA. Management agreements are usually short-term (2-5 years) and payment is in arrears.

4.1.3 Water Level Management Plans

There are 16 Drainage Boards influencing WLMPs in this ESA. There is a high degree of interaction with each of these, together with the EA. There are currently four agreed plans and seven in preparation. EN are also landowners in this ESA and seek to influence water levels through this process.

4.1.4 Farmer Uptake

Farmer decisions are 95% economically driven. The remainder (about 5%) have a genuine interest in wildlife conservation and are keen to see the ESA scheme succeed. However, they are a minority group and are frustrated by payment levels which make it difficult to achieve a profit through farming. More land is coming into the ESA and farmers are upgrading to higher tiers with greater payment rates, relying on these to help pay salaries.

When new farmers or landowners enter into agreements, the management prescriptions are discussed and then farmers are left to implement them for the 10-year period of the agreement. Inspections are carried out by MAFF, and FRCA carry out care and maintenance visits, informing the farmer of any necessary improvements.

There is uptake for Tiers 1 and 2, but limited uptake of Tier 3. There is currently 1200ha being farmed under Tier 3. However, the expected results for biodiversity have not been observed and bird populations are not recovering as expected. Farmers managing sites under Tier 3 were not clear what was expected of them, and were frustrated by the apparent lack of success. A series of mini-management plans and enhancement schemes are being prepared and more resources are being requested from MAFF to manage this. It is clear that one of the difficulties in managing an ESA of this size is the lack of staff to give detailed management advice. There is close liaison between RSPB, who are carrying out bird monitoring, and EN and FRCA. Populations of breeding waders appeared to be recovering in 1998 but results were poor in 1999. There is a target to secure 2500ha under Tier 3. EN's view was that it was important to learn from experiences with the current area under Tier 3, and when it could be shown that the management prescriptions in place were able to deliver biodiversity enhancement, then it would be appropriate to scale up uptake into this tier.

There was a strong view that target setting by FRCA in the ESA was more quantitative rather than qualitative, that is, the area under agreement was more important than bird numbers. EN are taking the initiative with pilot projects to show how certain management regimes can yield satisfactory wildlife returns. Once they have demonstrated how a regime can work effectively, it can be used as a model to convince FRCA, and in turn MAFF, to alter management prescriptions. Prescriptions for spring grazing in some areas are now considered too extensive for breeding waders as there is too much grass. Research now shows that there needs to be an early grazing derogation to reduce grass. Interestingly, FRCA ecologists are not involved with these pilot exercises. The main role of FRCA ecologists is research and survey work, but they are not involved in the day-to-day management issues.

4.1.5 Monitoring

EN have a research and survey budget, spending £5-8,000 per year on the Somerset Levels and Moors. Much of the survey work and monitoring is to carry out studies on SSSIs, and monitoring

ditch flora to ensure they remain at SSSI standards. Intensive botanical surveys of plots in raised water levels have been carried out. A data set is shared with FRCA, and this is used to provide information to strengthen EN's case to improve management prescriptions for biodiversity.

There are circumstances when data gathered from different surveys can be contradictory and this may lead to a conflict of interpretation. One trend which may be emerging is a gradual loss of diversity of dry land species and a corresponding increase in diversity of species which prefer wetter conditions. EN anticipate that they will need to debate whether or not this emerging trend is a problem, as it is possible that there may be a trend towards uniformity in species diversity across the ESA. The management of the wetter swards may be more difficult with falling incomes and productivity.

4.1.6 BAP Targets

A regional BAP has been published, and RSPB and a local consortium play a lead role in this. There are also Somerset District Council BAPs. EN have very little input into local BAP target setting and reporting. They have a role at a regional level and respond to EN head office requests for input into national target setting. Much of the BAP target setting and reporting is ad hoc and based on estimates, taking field experience into account. There is no formal list of species targets to be met by the ESA as a whole. Whilst EN are not involved in target setting for district level BAPs they have a key role in their implementation. The District Council, whilst having a role in setting targets has no role in land management, so there is a real danger that little progress will be made. Reporting is now the latest discipline, but there is no structure against how reporting should take place.

However, the BAP has prompted appropriate action, for example, more work has been carried out on reedbeds in Sedgemoor, in partnership with RSPB. Habitat maintenance and enhancement continues, and BAPs have prompted further work in priority areas.

4.1.7 The Future

EN state that ESAs were established just at the right time, in a form that farmers were willing to adopt. Prescriptions were not too onerous and farmers are prepared to support a scheme if it is straightforward and where there is some room for flexibility. There are less trees, increased willow pollarding, and bird populations are stabilising (on one site at a 10 year high). Ditch flora are stable and invertebrates may be showing signs of stabilising.

EN would like to maintain existing tiers but push for further uptake of raised water levels, possibly in the form of Tier 3. There is a great deal of debate about this issue, regarding the extent to which the clock should be turned back and whether farming should be allowed to progress for the purpose of raising livestock profitably or whether farmers are becoming nature reserve managers for birds. To date, the farming community have tolerated this because the payments are good, even if they do not like farming in this way. There are limits to how extensive an area it is possible to convert to wet grassland. Family pride in the work of previous generations to drain the land is high, and no amount of financial incentives will change the minds of some landowners.

There is a case for focussing conservation activities to where they will be most effective, for example, focussing on obtaining agreements in the areas which are already wetter, and on priority habitats. Overextending efforts simply to bring more land into agreements will result in no extra

benefits. There are over 1,000 agreement holders in this ESA and it may be better to build on this existing base to secure land in higher tier agreements, rather than seek new ones. This may help consolidate habitats and gain more continuous areas, rather than ad hoc agreements resulting in habitat fragmentation.

There are also flood defence issues to be considered. Flood defence assets are worth £50 million and maintenance is £1 million a year. Government policy states there is a case for reducing the level of protection for agricultural land, and believes that a revised scheme could adopt a tier-based approach, taking into account the value of the land for flood storage. Pockets of land which are important for flood storage could be identified and extra supplements offered in return for reducing overall flood defence costs and maintenance. This land would also be eligible for payments for extensive grazing regimes. In this way, conservation schemes could be joined with flood defence for a cost saving and wildlife gain. The EA is carrying out a flood defence review, so this concept may be explored further.

EN also highlighted a significant development pressure in the region, and local planning policies need to take into account conservation policies and schemes so no further pressures on SSSIs and other designated sites are imposed.

4.2 Farming and Rural Conservation Agency

4.2.1 General Issues

FRCA confirmed that there is a close working relationship with EN in the ESA. EN are consulted formally and informally, and there is a need to ensure that there is no double funding for the same areas of land. There is also regular liaison with the EA.

4.2.2 Water Level Management Plans

There is a need to bring farmers who use the same moor together in order to succeed in raising water levels. Water levels cannot be raised unless there is a continuous block of land which can be appropriately managed. It was commented that there is a reluctance to spend money, but the EA have been constructive in trying to achieve raised water levels. The IDBs have to balance the requirements of the rate payers. The EA are piloting each raised water level area, and if they are working after two years, they hand the management over to the IDBs. During this process, the IDB members will raise many detailed points about the specification. There is widespread concern about loss of flood storage capacity. Where landowners are concerned about high water levels, some vandalism has been known to occur.

4.2.3 Farmer Uptake

In some cases, farmers are unwilling to enter ESA agreements because farmers do not wish to flood land which previous generations of their families have drained. FRCA detect that there is a reluctance amongst other farmers to enter Tier 3 agreements; this is often considered a 'step too far'. Low stocking levels and short grazing seasons in Tier 3 prescriptions make management difficult, as alternative land needs to be rented. There is a point when the trade off between the payment incentives and the difficulties of complying with the more stringent Tier 3 prescriptions is no longer worth the effort. There are also difficulties in the case of tenant farmers. As they are not landowners, they cannot hold the agreement. It is possible to find grassland elsewhere to rent, and no problems with over-grazing have been observed. Indeed there is a tendency to under-graze.

Money is not the primary driving force in some circumstances. If a landowner has good relations with graziers or tenants, they may consider that changing tiers will force graziers elsewhere and this would not be worth the added payments.

Reluctance to move up a tier is also related to perceived agricultural effects. Higher water levels tend to look worse than they really are, and there is a reluctance to enter an agreement for Tier 3 because of the perceived problems. FRCA noted that some farmers are now growing more maize as a fodder crop. It is possible that land which used to be grazed could revert to arable use if maize becomes more important than grass for livestock.

FRCA reported that there is little flexibility in management prescriptions. However, where possible, FRCA attempts to alter management prescriptions within certain limits in order to give farmers the flexibility they need. FRCA noted that many changes can occur, both in farming and in local circumstances, in the space of five years, after which it is possible to review the management prescriptions. There is a large consultation process at the five year review stage. It is possible to enhance flexibility for wildlife by implementing Wildlife Enhancement Schemes which are managed by EN. These can be designed and implemented on a site by site basis.

The relative priorities for landscape, wildlife and archaeology are weighed in relation to the sites under agreement. FRCA has its own landscape architect, and landscape assessments are carried out. One controversy that has had to be dealt with is the removal of scrub and woodland in order to protect breeding waders. Trees offer roosts for predatory birds such as crows, and EN have proposed that in some areas where there are raised water levels, scrub should be cleared to improve the habitat for breeding waders. FRCA, therefore, have to handle a conflict where landscape issues may be judged equally important. In the FRCA view, breeding waders are only one aspect of the overall scheme. FRCA do become more involved on the micro-scale rather than looking at the overall picture. FRCA have little control over land that is outside the ESA, and even then only in areas which are subject to ESA agreements. It is therefore difficult to solve wider problems with ESA agreements alone. FRCA take the advice of their own ecologist. It was considered that there were not necessarily differences between FRCA and EN ecologists, but whilst EN would push for as many positive wildlife issues as possible, FRCA ecologists had to balance out what was beneficial with what was realistically achievable in setting objectives and management prescriptions.

The FRCA view was that the single largest influence on the success of the ESA and the local environment was the Common Agricultural Policy. Future uptake of ESA agreements were likely to be influenced by production subsidies; if these drop, there may be an increase in uptake, as this may be easier than changing the nature of the business. Cross compliance may also have an influence, where payments are dependent on environmentally sensitive practices being maintained. However, it was considered that ESA payments were a top-up and no compensation for falling farm incomes, as ESA payments are based on income foregone.

There were also issues such as the cost of the administration of the ESA that needed to be addressed. Further expansion or more detailed involvement on more specific prescriptions inevitably have a resource cost and more staff are required to achieve this. In order to be more successful in the future, FRCA are strongly of the view that there needs to be more flexibility in the prescriptions in each tier. Interactions with the Countryside Stewardship Scheme also needed to be considered. It is possible that ESAs could become a special project within the Countryside

Stewardship Scheme, offering a basic framework, from which a range or menu of more site specific options could be chosen.

FRCA actively encourage farmers to enter land into a higher tier agreement. Habitat fragmentation is not actively addressed; however, SSSIs have priority and EN advise appropriately. It is considered that it is better value for money to persuade a farmer to enter an agreement where surrounding land is also under agreement. Where a plot of land exists in the middle of an area under arable cultivation in an ESA, there would be little benefit in entering it into Tier 1. FRCA consider that reversion from arable to grassland to meet conservation needs will cost a significant amount of money. FRCA would welcome more feedback on conservation and BAP priorities, but ultimately it is a case of what conservation bodies or Government are prepared to pay. It was considered that the 80% capital works grant were not adequate to overcome inertia.

4.2.4 BAP Targets

FRCA understood that there were few BAP species in the ESA. The otter is an obvious one. BAPs do not sit within current agri-environment schemes. Monitoring was carried out in the first five years after the ESA was set up but will not be so intensive in the future. FRCA pointed out that priorities needed to be set, in that conservation for particular species will always be at the expense of others. FRCA commented that a lot of further work needed to be carried out in order to learn how to achieve bird population recoveries. RSPB has been assisted by the ESA, and indeed RSPB are landowners, farming land under agreements. Wildlife Trusts are also moving in this direction. Also, creation of scrapes for breeding waders may conflict with the objectives to conserve archaeological sites.

4.2.5 Monitoring

A lot of monitoring was carried out in the first five years after this ESA was designated. FRCA are aware of the studies being carried out by RSPB on birds, and gain an understanding of habitat and SSSI issues from EN. It is understood that future monitoring will not be so intensive. It was commented that there is a general lack of baseline monitoring in the ESA as a whole, and no specific BAP monitoring is fed back to those managing the ESA.

4.2.6 The Future

The next review of the ESA will be in 2002, so drafting will start next year. Targets have already been agreed with EN, and FRCA's priorities are to consolidate existing areas under agreement and attempt to upgrade existing agreements into higher tiers. The relationship between ESAs and Countryside Stewardship may need some defining, especially if more money for Stewardship becomes available through CAP reform. If production subsidies are reduced and there is an increased emphasis on cross-compliance, whereby payments are dependent on adopting conservation practices, there may be enhanced uptake. FRCA are of the view that there needs to be more flexibility than currently available in the prescriptions in this ESA, to respond to particular site specific circumstances.

5. Upper Thames Tributaries ESA

5.1 English Nature

5.1.1 General Issues

EN have little day to day contact with FRCA. If necessary, liaison will take place in an ad hoc fashion, but EN does not feel that there is a need to become more closely involved, firstly because it considers FRCA are managing the ESA in a satisfactory manner, and secondly because there is a lack of resources. There is an annual liaison meeting with a number of conservation bodies who were all involved when the ESA was set up. Management prescriptions were revised last year, and EN considered there to be a good consultation process, involving RSPB, Wildlife Trusts, Farming and Wildlife Advisory Group (FWAG) and County Council ecologists. Management prescriptions are considered to be improved, taking into account the first five years' experience. The Upper Thames Tributaries was set up in the last tranche of ESAs, principally because of the concern over Otmoor drying out and an associated decline in breeding wader populations.

Water Level Management Plans are either in Interim Statement form or as full plans for all SSSIs. EN's view is that these plans are unlikely to be effective in raising water levels in areas of conservation interest which require wetter conditions. The plans currently outline the current status of each site, and identify particular problems which require further investigation so that action can be taken. However, they do not at present set out what action needs to be taken. The Environment Agency are playing a role in investigating issues at Otmoor, including pumping water in and out of ditches. This is being carried out with landowners, RSPB, Wildlife Trusts, EN and FRCA. EN hope that action will be implemented soon.

The Upper Thames Tributaries contains a more scattered range of SSSIs than other floodplain ESAs, including important meadow land around Oxford, which is a candidate SAC. EN want the ESA to be extended into Wiltshire, and this is on their agenda for future discussions with FRCA and MAFF.

5.1.2 Farmer Uptake

Farmer uptake for an ESA at this relatively early stage of establishment is considered adequate, and most agreement holders are co-operative. Most problems tend to exist with larger estates, where landowners are reluctant to participate. Payment levels are an issue for smaller landowners, but there are deeply entrenched views about EN/MAFF interference and an unwillingness to cope with extra bureaucracy. EN reported that this has not really hampered EN in getting SSSIs managed within the ESA; there is only one SSSI where problems have been experienced. Mixed farms tend to drop in and out of Countryside Stewardship schemes, but it was noted that changes to CAP with reduced production support could be instrumental in encouraging farmers to enter into ESA agreements.

Recent changes to the management prescriptions have included the introduction of payments for implementing buffer zones around water bodies and hedges. Fertilizer inputs have also been altered to protect flora community structure, reduce eutrophication and protect ditch flora. There has been a relaxation on mole drainage - this has encouraged more farmers to participate in the scheme. There has also been an alteration in the grazing regimes, to allow non-grazing periods

to be synchronised more closely with breeding birds. It is difficult to balance the grazing around birds' lifecycles. Grazing is required at the correct time to keep vegetation down sufficiently, which will in turn be influenced by nutrient levels and flooding. However, during the breeding season when grass is growing more rapidly, stock will trample the birds. FRCA are addressing this by drafting more flexible management prescriptions on key sites.

Where SSSIs exist on land which is in an ESA agreement, top-up payments may be available to carry out positive management of the site. There is no specific Wildlife Enhancement Scheme, but seven management schemes have been implemented to pay 75% of capital works on sites, allowing the ESA payments to take over to maintain the land. This has been important, because otherwise the landowners would not have entered into the ESA agreement at all. EN appears to have no input in the agreement of conservation plans within ESAs unless they involve SSSIs.

5.1.3 Monitoring

Little monitoring is carried out, apart from assessing the quality of SSSIs. The ADAS monitoring of the ESA is not fed back to EN. EN are aware of these reports but have different needs. EN were doubtful whether the ADAS botanical monitoring would be of much use in the short term, at the detail at which it is recorded. EN consider that conversion to species rich sward is likely to take some time and they are more interested in the longer-term scenario. There are no expectations of short term population recoveries, but EN hope that ESA damp grasslands start becoming more diverse within 2-3 years if they are managed correctly. There is feedback from RSPB on bird populations, and EN have an understanding of the overall situation in the field. Wader monitoring is more important in the short term, and EN suggest that this should be carried out in conjunction with other factors such as sward structure monitoring and assessing the levels of available food for these birds. The monitoring of water retention and nutrient changes might be more useful in the short term than regular invertebrate monitoring, though a certain amount of base-line data on invertebrates would be valuable.

5.1.4 BAP Targets

In terms of meeting BAP targets, it was considered that the ESA scheme is playing an important role in improving habitat quality, especially for species such a water voles. Bird populations have not increased demonstrably, but this may be because of drier springs, and a relatively low uptake of the wet tier. EN considered that the management prescriptions are moving towards a better balance between landscape, biodiversity and archaeology. Objectives and prescription were more landscape driven, but the introduction of buffer zones have increased the emphasis for conservation. Payment structures may influence uptake into higher tiers, which have more benefits for biodiversity than for the landscape. However, because this ESA has only been in existence for six years, there is still a need to maximise uptake into Tier 1. Once landowners are in the ESA scheme, a small proportion are more likely to upgrade into the next tier, but in practice uptake into the higher tiers has been very low, for example only 3.5% of the land under agreement is wet grassland and 2.6% is fen. It is likely that this land would be managed this way with or without the ESA, since it is managed primarily for conservation by landowners such as RSPB.

Whilst overall habitat quality may be improved by the ESA scheme, it was considered debatable whether there would be a significant delivery in BAP species targets. There is an issue of balancing conservation priorities, for example, EN would wish to gain more floodplain woodland within the ESA scheme, but not at the expense of breeding wader habitats which require open land

without scrub or trees which provide roosts for predatory birds. FRCA are aware of the best areas for the development of wet grassland, particularly those close to SSSIs. They are seeking to encourage landowners to enter into the appropriate agreements which will help consolidate and expand the habitat, thereby ensuring continuity and encourage population increases. It was considered that hares may have benefited from the ESA, but observations are anecdotal and based on the field officer's general observations. A nationally important meadow site which supports creeping marshwort is now being entered into the ESA scheme by Oxford City Council. This is a large common between 500 and 600 hectares in size which becomes flooded. EN are funding the Oxford Rare Plants Group to monitor this species. However, fen violet grows in areas which are not in the ESA, but this is not considered to make much difference, since with or without the ESA this land would be under a management agreement. Protecting such species requires very specific management which it may not be appropriate to expect the landowner to carry out themselves.

The local BAP is shortly to be published, having been prepared by the network of steering groups co-ordinated by the Nature Conservation Forum in Oxfordshire. As with most other areas, specific conservation projects are carried out by specialist interest groups. EN is not set up to implement the specific targets, as they concentrate on implementing wider conservation needs, such as SSSIs. The local BAP process through the Oxfordshire Nature Conservation Forum should feedback to MAFF/FRCA where it can input into meeting local BAP targets that are being formulated within the local Habitat Action Plans. There are specific actions on this within the plans, where specified organisations are responsible for its implementation. EN is of the view that a trend towards improving the abundance of species and increasing habitat quality will take decades, and that the current BAP targets may not reflect reality with respect to monitoring. EN's function is to carry out site integrity monitoring; the organisation is not resourced for staff to count different species numbers.

5.2 Farming and Rural Conservation Agency

5.2.1 General Issues

FRCA confirmed that they are very much left to manage the ESA by themselves, although there was a great deal of input from EN and other conservation bodies during the five yearly review process. Because this ESA was established in 1994, the first review was only recently completed, and there have been many new issues to be addressed.

The continuing livestock farming in the area will ensure that there is sufficient grassland within the ESA. If there is a further depression in the beef market, FRCA considered land would be more likely to go into willows rather than arable. However, it may be encouraging landowners to enter tiers for wetter grassland, as there is a stable payment for ten years. This will involve movement of livestock to comply with shorter and more extensive grazing regimes. Liaison with MAFF to change the payments to reflect this situation may encourage uptake. Now the revised ESA scheme has been launched, there is already increased interest in the wetter tiers. FRCA are observing that landowners are feeling more comfortable with the ESA scheme. As in other ESAs, RSPB is a landowner and farmers manage the land under exacting contracts.

To date there are over 300 agreements amongst the 500 landowners within the ESA, but this is a slow process. FRCA commented that MAFF are keen on target setting, but that it takes time

to build up relationships in a new ESA and this is resource intensive. FRCA assist as much as possible with the paperwork, as bureaucracy is still an off putting factor for many farmers. Other schemes also come into play within the ESA, FRCA is also involved with the Countryside Stewardship Scheme. Promotion of this scheme has been devolved to the County Council Ecologist, together with the Farming and Wildlife Advisory Group (FWAG). FWAG may help to draw up whole farm plans which form the basis for Stewardship applications in the county. EN fund work in SSSIs under their own management agreements. Local Authority grants are available for willow pollarding in non-ESA areas.

5.2.2 Specific Management Regimes

In the Upper Thames Tributaries there are fewer agreement holders, and a demonstration of the GIS system revealed how a core area of conservation value had been improved by targeting landowners of particular fields to enter land into higher tiers, and extend the habitat bit by bit. This was further enhanced by the FRCA drafting management prescriptions to meet a particular target, such as the habitat required for breeding waders. This was carried out with RSPB as well as the farmer, to ensure that a workable management regime could be implemented which allowed sufficient flexibility for the farmer to farm the land under most conditions. In the site that RPA visited with FRCA in the Thames Upper Tributaries, a significant habitat gain had been achieved in only two years by securing an agreement with a landowner whose field was adjacent to a well established SSSI. This approach is used in the Test and Avon Valleys, and was utilised by FRCA in the Upper Thames Tributaries in a more focused way for optimum benefits to wildlife.

5.2.3 Monitoring

FRCA used the botanical and bird monitoring (carried out by ADAS) to inform their review process. It was noted that the landscape and historical monitoring reports were difficult to use for the review process and that species surveys are the most useful for informed land management.

There is some detailed information available from a few intensively monitored sites, particularly those managed by the voluntary sector. FRCA considered it was possible to ask for a specific survey if necessary; currently they extrapolate from the small surveys. However, FRCA noted that repeated bird surveys were not needed to tell them that there was little in the way of significant bird recoveries in the area.

With respect to BAP targets, FRCA considered that the ESA would make most contribution to BAPs by encouraging habitat recovery, especially those for which Costed Action Plans have been prepared, such as grazing marsh. Invertebrates in ditches may now be benefiting from raised water levels in some areas. FRCA understand that voluntary groups carry out specialist work to protect particular species and that their monitoring feeds into the appropriate BAP steering groups, but considered that MAFF and DETR are not allocating resources to do this.

5.2.4 Future Developments

FRCA propose to spend less time on promoting the scheme and more on management of specific issues within the ESA. The ESA is still in the growth phase, so further promotion is still necessary. Within the ESA, it is proposed to consolidate as much as possible, and at the ten year review, aim to include more specialist tiers to encourage further biodiversity gains. The drafting

of the specific management prescriptions has been a very positive experience and FRCA wish to continue this practice. FRCA observed that publicising the changes to existing and non-agreement holders alike, inviting them to comment on the more flexible prescriptions during the five year review resulted in 300 new applications.

FRCA have developed a GIS system to assist the process of more effective targeting of resources to gain more continuous habitats, especially important wetland sites. This assists the drafting of more flexible management prescriptions at important sites for more effective habitat management. GIS can also assist in the targeting of bunding to retain water on clay sites. This approach also ensures consistency of management if there are staff changes.

6. Avon and Test Valleys ESA

6.1 English Nature

6.1.1 General Issues

There are 47 SSSIs in the Avon and Test River Valleys. The Rivers Avon and Test are SSSIs themselves and are high quality chalk rivers which host salmonid species and lampreys. There is significant pressure on these sites, mainly from development of land, abstraction and diffuse pollution. There is little time for positive management by EN, simply because the pressures necessitate prioritisation of resources elsewhere.

Over-abstraction is a major issue in these river valleys, which affects both the quality of the rivers and the ability to establish flood meadows at appropriate sites. Diffuse pollution is also a serious issue, due to both farming and other industrial activities.

The working relationship between EN and FRCA is good, but FRCA expects more detailed input from EN. However, EN are content to allow FRCA to proceed as proposed in most cases, so long as the ESA does not compromise the SSSIs. The grassland management plans are fully endorsed by English Nature. FRCA are lobbied heavily by voluntary conservation organisations, and FRCA sometimes need support to ensure that the correct balance is struck between different conservation needs and priorities.

6.1.2 Water Level Management Plans

WLMPs are not implemented in the Test Valley. It is considered that they would assist uptake of management agreements if they can be implemented. The EA is contracted to prepare the plans. There is a well worked plan in existence in the Avon Valley. The EA appears to have more influence in the Avon compared to the Test. Fishing rights are a powerful economic driver in the Test Valley, managed by landowner and river keepers. The EA find it difficult to gain more than their statutory influence, and there are strong demands to keep the water in the river for fishing, rather than encouraging flooding.

Flooding adjacent land needs to be considered carefully in rivers of this quality. However, other measures such as buffer strips and arable reversion will play an important role in reducing diffuse pollution via fertilizers and pesticides. However, EN considers that uptake is limited, because landowners are unwilling to bring narrow strips of land into the bufferstrip agreements, and stronger incentives may need to be considered to address this. EN also considers that the current livestock market depression may encourage mixed farmers to bring more land into arable cultivation, which could result in increased impacts. Extensive grazing would work well, but the timing of grazing is important, as it can affect crayfish populations. Uptake in the Avon is better than in the Test Valley. EN has 17 management agreements in SSSIs for positive works. There is no Wildlife Enhancement Scheme for the Avon Valley, but one is being set up in the Test.

EN considers that the priority for MAFF in the ESA is the area of uptake, rather than the quality of the habitats. Some targeting is necessary to secure agreements in areas inbetween land under agreement, otherwise habitats will continue to be fragmented. There is an increasing emphasis on restoring ditches and scrapes, the latter for breeding waders. Funding for fencing for livestock and capital works on water courses is available. EN considers that the ESAs should have a

positive effect for BAP targets, but it is too early to assess the impact. There are no specific BAP targets and indicators which are relevant for the ESAs. The most important indicator is the condition of the SSSIs in the area. EN monitors these, but no specific BAP monitoring is carried out.

BAP monitoring is carried out in partnership, feeding into Habitat Action Plan steering groups. The EA is responsible for monitoring aquatic mammals, working within the Hampshire Biodiversity Partnership.

It is very important that monitoring continues. Vegetation monitoring is considered of key importance. EN believes that consideration should be given to indicator species of habitat quality for future monitoring. Bats were cited as one example, especially those that are floodplain species such as pipestrelles. These have suffered significant declines, not only because of roost losses, but also loss of insect biomass for food. Since they are highly mobile, with large foraging distances in river valleys, monitoring numbers could give an indication of the health of the floodplain habitats, in being able to support insect populations.

6.1.3 The Future

ESAs are expected to play a significant role in meeting BAP targets, especially with respect to habitats, and thus FRCA play a key role in achieving these. EN wishes to convert 120ha of land into floodplain habitats, which the ESA can deliver. In EN's view, incentives for the different tiers need to be changed. Whilst Tier 1 grassland is more preferable to arable land, biodiversity value is limited. Prescriptions need to be conservation led, for example, aiming for particular sward heights. This should not clash with other objectives of the ESA scheme, namely landscape or protection of historical monitoring. EN also considers that the ESAs play an important role in protecting SSSIs, almost like a buffer zone around the areas of key importance, and contributing to the management of sites.

There is already a liaison network and meetings for the Avon Valley and EN believes it would be beneficial to set one up for the Test Valley as well. The County Council chairs the local BAP steering group. An audit is due to be published in 2000. EN considers it important that all listed organisations take responsibility for implementing targets and carrying out monitoring.

6.2 Farming and Rural Conservation Agency

6.2.1 General Issues

FRCA are keen to make a contribution to conservation in the Avon and Test Valleys, but are concerned that they should not be relied on totally. More EN input would be welcomed, but FRCA appreciate that this is a resource issue. Advice is particularly sought on detailed issues regarding the management prescriptions, such as sward heights. Management prescriptions were initially very landscape orientated, but the conservation emphasis has increased, and FRCA have adopted a policy of drafting individually tailored agreements in order to accommodate landowner and conservation needs.

6.2.2 Water Level Management Plans

FRCA are involved in the preparation of the WLMP for the Avon Valley, together with bodies such as the RSPB. There are conflicting issues which need to be addressed, such as flood defence, needs for higher water levels in flood meadows, and fishery quality. Notable fish species in these rivers include Bullhead, Lamprey and Atlantic Salmon. Water channel management is a major issue, and the fishing community is a powerful group in this area. FRCA consider that EN and EA need to agree priorities for conservation in the water bodies and surrounding land so that FRCA can seek the appropriate agreements. For example, raised water levels may result in declines in flora in some botanically rich meadows. Different techniques in river management are being considered to address weed cutting, dredging, protection of important spawning areas and stretches of river channels.

It is these conflicts that has led FRCA to adopt a more site specific approach in drafting ESA agreements, to try and achieve a balance. Progress with the WLMP is slow and EA are approaching it from a strategic point of view whilst FRCA are taking a site specific approach. There are conflicts between farming needs, for example, arable farmers want drainage. Where there are relic water meadows, there is less fine control over controlling water levels compared to the Somerset Levels. The major issue is abstraction; unless there is more water in the rivers as a whole, many irrigated meadows will dry out. There is, therefore, a limit to how much FRCA can achieve because of this. The EA is not legally required to cut weed growth back, so if they decide to stop, they would achieve more than FRCA could.

6.2.3 BAP Targets

Local targets have been set ambitiously towards reversing breeding wader declines, but this requires extensive areas of suitable habitats. The EA has a role to play in this as well as EN and FRCA. FRCA will find it difficult to secure the appropriate land under agreements, and their short-term objective is to preserve the existing status quo and build on this. MAFF responded positively to the comments received at the last five yearly review. The payment for the wetland tier was increased to £295/ha to provide further incentives. There is also an 80% grant for capital works. FRCA continue to try and increase the payment for ditch management from 30% to 80% of capital costs. Many ditches are currently choked with scrub, and in order to gain wet grassland, much work is required to open up the ditches to let water through. A further supplement will be introduced for protecting species rich hay meadows. However, MAFF can only set levels according to farm incomes, and there is a need for stronger incentives for positive management if ESAs are to contribute to BAPs.

6.2.4 Farmer Uptake

There is resistance to enter ESA agreements. There is a minority of enthusiastic landowners, but historically the Test Valley has always struggled to obtain ESA agreements. Take up in both the Avon and Test Valleys is about 40%. Dairy farms in the area are intensive and farmers also grow maize which is a valuable fodder crop. Fishing rights bring in a considerable income, particularly on the River Test, and ESA payments cannot match this. Another problem is that the ESA is a part-farm scheme, in that only thin strips of land are eligible for payments. This makes it difficult for farmers to justify the effort involved. Farmers tend to prefer to run one simple business rather than one consisting of diverse interests. By comparison, the South Downs ESA operates more on a whole farm basis, and this makes it much easier for farmers to run. Landowners do not

appear to be as dependent on ESAs as upland farms, although some farmers are now starting to look at ESA agreements more carefully as an additional source of revenue. MAFF would not accept ESA expansion in order to get more uptake, as the ESA boundaries are set by landscape and ecological features rather than farm boundaries.

The ESA is also affected by activities outside its boundaries. For example, arable agriculture results in silting of gravel in the river which affects the fishery. FRCA are considering how to address this, but it would be difficult to bring the whole catchment into the ESA, as MAFF could not justify the cost. MAFF will assist in the funding of silt traps near the rivers, but will not fund anything outside the ESA boundaries. As one of the objectives of the ESA is to enhance the aquatic habitat, buffer strips are considered extremely important.

6.2.5 Specific Management Prescriptions

FRCA have approached the difficulties in securing uptake of agreements by drafting specific management agreements. This is difficult to achieve, because resources are limited, but in 1998, 95 such agreements were prepared and secured. In future, FRCA will have to be more selective, focusing on sites of prime importance. In drafting agreements, FRCA has to bear in mind that the land has to continue being farmed, and that the land cannot be managed in the same way as nature reserves. The prescriptions are approached in terms of what is required from the site, for example the objective may be a particular sward condition in order to be of optimum use for the following wader breeding season. It may be necessary to specify what the landowner should achieve in terms of sward height, and a particular proportion covered by tussocks. Grazing and weed control regimes, supplementary livestock feeding points and site wetness may need to be specified, but only if they are considered to be relevant. FRCA aim to keep the prescriptions as short and simple as possible, possibly supported by supplementary information which may help the farmer achieve the objectives.

Other works such as bat boxes or otter holts can be supported with grant aid, provided that the land in which they are placed is being farmed.

6.2.6 Monitoring

FRCA understand that MAFF is still considering how the future monitoring of ESAs should be carried out. Whilst monitoring is carried out by different bodies for different purposes (for example, Game Conservancy surveys of snipe), there is no formal mechanism for feedback to EN or FRCA so that the contribution of the ESAs to wildlife conservation can be assessed. Important habitats such as those in SSSIs are monitored by EN and these can give an indication of the success of the ESAs in protecting them. FRCA are kept aware of BAP priorities through their ecologist. The EA has carried out some monitoring of aquatic species, and has also collated data from other sources. Species information is being collated on a GIS system by EN and this has been given to FRCA. FRCA commented that there is a great deal of goodwill and co-operation between themselves, EN and the EA, so because they are working towards similar objectives, there would be an exchange in whatever monitoring data was available.

6.2.7 The Future

FRCA considers that MAFF is firmly committed to the ESA scheme, and will continue to provide funding. Monitoring shows that the ESA scheme has slowed down habitat degradation, but there

is now scope for enhancement. FRCA will consider refusing applications for agreements or conservation plans that are of poor value to the overall ESA objectives. Some extra incentives need to be added to some tiers to increase uptake. The site by site management plans will continue to a certain extent, but this is resource intensive. FRCA set modest targets for wet grassland, given the negative response they have received in the Test Valley. A priority will be trying to establish more wetland for waders, and small scale ditch works for invertebrates and high priority species such as the Southern Damselfly. FRCA will try to be flexible to accommodate BAP issues, but they do consider that in the Avon and Test Valleys, it is important to secure a larger area under agreements, rather than a scattering of high quality fragments of land.