

6 Biodiversity: the UK Steering Group Report

Biodiversity: the UK Steering Group Report (1995) takes forward Biodiversity: the UK Action Plan with the first 116 species Action Plans and 14 habitats Action Plans to tackle the most pressing cases of biodiversity conservation and enhancement. For these it provides targets and costed means of achieving them. By way of background it sets out the criteria used in selecting priorities for action, together with a broad explanation of how biodiversity can be nurtured in practice. The Government Response strongly backed the approach adopted.

The Steering Group brought together experts from a wide variety of backgrounds under central Government chairmanship. The nature conservation agencies, local and central government, the collections, business, farming and land management, academic bodies, and the voluntary conservation bodies were all represented. A variety of detailed practical arrangements were established following the setting up of the Steering Group to take the issues forward. These, and some additional background information on the remit of the Steering Group, are outlined in Appendix 3. The Steering Group prepared the various lists of target species and habitats and targets. It also oversees the organisational framework to implement targets: the UK Biodiversity Group, Targets Group and Information Group. The group has also published guidance notes which may be of relevance to the industry.

Biodiversity: the UK Steering Group Report was published in 1995. It set out an agenda for conserving and enhancing biodiversity, emphasising the main opportunities for securing improvements through regulations and land management, together with measures to strengthen implementation of existing practices, to develop new ones, and to incorporate biodiversity into a range of existing policies. The *Steering Group Report* also examined the application to biodiversity of key sustainable development ideas: the principle of carrying capacity, the precautionary principle and the polluter pays principle.

Whilst *Biodiversity: the UK Action Plan* identified aggregates as a threat to biodiversity within the coastal zone (paragraph 6.58), implying marine aggregates dredging, the *Steering Group Report* included 'minerals and aggregates extraction' in a list of mostly industrial practices which adversely 'impact upon biodiversity' (Summary, paragraph 7), though this is not developed further in the main text.

Action plans were prepared for priority species selected on the basis of: substantial decline in their numbers or range, the UK's national and international commitments, the level of international threat, and the UK proportion of world or regional numbers. Action plans were also prepared for priority habitats which are the subject of international obligations, important for key species, at risk or functionally critical. None of the priority species or habitats is definitively tied to mineral working, except that some limestone pavements are at risk of damage or destruction by unauthorised excavation for garden rockeries. Around 800 further species and a further two dozen key habitats which will require further special measures

(usually Action Plans), some of which are in preparation. By the end of 1998, a further 24 Habitat Action Plans and 290 Species Action Plans will be published. The status of 1,200 species will continue to be monitored.

The action plans show: the current status of the species or habitat; the main factors which have caused loss or decline; conservation action currently in progress; targets for habitat size or for species populations or range; and a list of actions needed to support the targets. All the action plans are costed. 15 action points are used for each species. Total annual costs for species in 1997 are estimated at £3.8m, reducing to two thirds of this by 2010. The Government might expect to bear half the cost. Annual public expenditure on habitat action plans, including land management, grants to landowners and land purchase, are estimated at £12.9m by 1997, rising to £37.2m by 2010. These figures compare with current agri-environment schemes (alone) for the UK currently costing about £100m, out of total UK agricultural support payments of over £3 billion.

Improvements were proposed for the quality and accessibility of data and biological recording, particularly through a shared UK biodiversity database. Various recommendations were also made for raising public awareness of biodiversity, particularly through messages being relayed through leading and respected figures within each sector that affects biodiversity, and through good practice examples.

The process of drawing up Action Plans for species and habitats was drawn up by Government agencies and voluntary organisations concerned with nature conservation, but unfortunately largely excluded the minerals industry. We consider there would be merit in the minerals industry being invited to participate in the drawing up of specific action plans which have yet to be prepared and, for its part, in the minerals industry seeking to become involved.

In the *Government Response to the UK Steering Group Report on Biodiversity* (May 1996), the Government strongly endorsed the proposals and reiterated its commitment to conserving British biodiversity. This statement, like the *UK Action Plan* itself, is a high level statement of Government policy. With its emphasis on restoring and enhancing habitats and boosting the numbers of scarce species, there is a clear implication that mineral working and other developments should be associated with recovery rather than further losses of biodiversity. The *Government Response* included a detailed report on progress in implementing the 59 steps previously set out in *Biodiversity: the UK Action Plan*.

7 Local Biodiversity Action Plans

The purpose of Local Biodiversity Action Plans is to focus resources to conserve and enhance biodiversity by means of local partnerships, taking account of both national and local priorities. Local Biodiversity Action Plans should translate the UK Strategy into locally achievable plans based on audit.

The Steering Group envisaged Local Biodiversity Action Plans as one of the main methods of implementing proposals for species and habitats within the national Action Plan. These would be expected to blend the interests of local distinctiveness with meeting national targets. The Steering Group provided guidance on their preparation, essentially as a local partnership between those capable of ensuring that programmes for conservation of biodiversity are maintained in the long-term. The plans are expected to be an integral feature of the Local Agenda 21 process (derived from the Earth Summit).

The Steering Group comments further on their potential role: *“A Local Biodiversity Action Plan can act as a catalyst to develop the effective partnerships needed to ensure biodiversity in the long term. These local partnerships may, in turn, raise awareness of the importance of biodiversity, thereby gaining wider public commitment. Widespread “ownership” of a Local Biodiversity Action Plan is regarded as crucial to success in building commitment within the local community. Local Biodiversity Action Plans should also identify where it is appropriate to halt recent trends in habitat fragmentation, and create new and attractive landscapes by habitat enhancement and restoration. The data which form an integral part of Local Biodiversity Action Plans need to be compatible with the national biodiversity database, and thus they will play a key role in monitoring progress towards national targets”* (paragraphs 2.21-22). Annex C of the *Steering Group Report* sets out in detail ‘Guidance in developing Local Biodiversity Action Plans’.

Local BAPs are part of the means of implementing the UK Biodiversity Action Plan, though they have wider functions as well. Guidance Notes prepared by the UK Local Issues Advisory Group on behalf of the Local Agenda 21 Steering Group and the UK Biodiversity Group summarise these functions of Local BAPs as follows:

- to ensure that national targets for species and habitats, as specified in the UK Action Plan, are translated into effective action at the local level;
- to identify targets for species and habitats appropriate to the local area, and reflecting the values of people locally;
- to develop effective local partnerships to ensure that programmes for biodiversity conservation are maintained in the long-term;
- to raise awareness of the need for biodiversity conservation in the local context;
- to ensure that opportunities for conservation and enhancement of the whole biodiversity resource are fully considered; and
- to provide a basis for monitoring progress in biodiversity conservation, at both local and national level.

Local BAPs are uniquely placed to focus attention on locally important issues and to deal with local pressures. They also provide a distinctive link to local communities, educational priorities and local record centres.

The process of producing Local BAPs commenced in 1995 with a number being completed

prior to production of the detailed guidance notes, referred to earlier. A database indicating which plans are available or in the process of production is available from The Wildlife Trusts Partnership. This is reproduced as Appendix 4 (position as at January 1998). From this it is evident that nearly 100 known plans have been or are being produced, though this is a rapidly evolving field. Local BAPs are considered in our study as a key area in which the minerals industries can be involved.

8 English Nature's Natural Areas

Natural Areas are locally distinctive areas of wildlife interest identified by English Nature across the whole of England. Promotion of biodiversity interest at the local level is expected to take into account this local dimension, so that biodiversity typical of each area is enhanced. Biodiversity across the whole country will be assisted, not just special species and habitats. There may also be opportunities to focus expenditure on 'Prime Biodiversity Areas' within Natural Areas, and to integrate the approach with protecting the landscape and historic environment in 'Character Areas' drawn from a wider frame of reference.

The Natural Areas approach was introduced by English Nature to address the need for habitat and species conservation in a landscape context, distinctly wider than the level of individual protected sites. This is particularly useful for tackling the needs of species which occupy habitats which are in themselves not rare, such as farmland birds, but which have suffered from habitat damage.

A map of England showing 120 Natural Areas, including 23 Coastal Natural Areas (3rd edition, December 1996 - see p47 of this report) gives a visual representation of the concept. Each Natural Area should encapsulate landscape comprising a distinct ecological unit. The areas aim to strike a balance between being fine enough to have local relevance and large enough to be workable. English Nature has prepared profiles for each Natural Area, describing the key wildlife features, the major issues affecting the area and objectives to address those issues. Objectives are laid out in a CD-ROM, available from English Nature, called '*Natural Areas - Nature conservation in context.*' This CD-ROM also breaks the first tranche of UKBAP targets down by Natural Area.

The advantages of the Natural Areas approach, identified by English Nature, are:

- nature conservation will no longer be seen to be site related, but as part of a wider countryside framework;
- the biodiversity of an area can be tackled in a concerted way, no longer thinking within the administrative boundaries of local government;
- local decisions can more easily be based on a wider view, and supported by better information;
- much of the data already exist and the value of local habitats and species in a wider context can now be identified more clearly.

Two detailed extensions of the Natural Areas idea are relevant to mineral companies and this study: Prime Biodiversity Areas and Character Areas.

English Nature aims to maintain and enhance the characteristic biological diversity and natural features of England across their traditional ranges. The Natural Areas approach helps to identify those traditional ranges. It also enables English Nature to target particular areas to deliver the objectives of the Biodiversity Action Plan and other priorities. In particular, English Nature has encouraged the identification of 'Prime Biodiversity Areas' specifically within Natural Areas. These are areas with particular concentrations of high priority habitats where action is likely to be most cost effective. They should have potential for the creation of an extensive biodiversity resource by appropriate restoration and management of the habitat throughout the area, between formally designated sites. They are identified in the *Steering Group Report* as a priority location for action. Such concentrations offer opportunities for proactive programmes aimed not only at managing individual sites, but also increasing the level of biodiversity of intervening land. Biodiversity improvement might be achieved through habitat management and enhancement, or by means of habitat re-creation aimed at restoring the natural character of the local area.

Identification of Prime Biodiversity Areas is a local function being carried out as part of Local Biodiversity Action Plans. Progress has been limited and central records are not kept, but as part of our consideration of Local Biodiversity Action Plans we have endeavoured to identify any Prime Biodiversity Areas so far proposed in an area where mineral working takes place. Only two local BAPs in our investigations refer to Prime Biodiversity Areas. Both were delineated by the Somerset Environmental Records Centre, which has used its well-developed biological database and previous biodiversity audits for the purpose. The Mendip BAP identifies a number of 'High Biodiversity Areas' within which quarrying is a major activity (see Case Example 8). However, it appears that few BAPs go as far as this level of detail.

Whilst English Nature has been preparing Natural Areas based on localities with distinctive nature conservation interest, the Countryside Commission has been developing a Countryside Character approach to identify local distinctiveness in wider terms of visual appearance (landscape, building design and traditional features). Behind both Natural Areas and Countryside Character lie the same physical factors of geology, soils, topography and climate, modified by land use, which have shaped the characteristic patterns of natural features, species and habitats. Furthermore, the coincidence of historical and cultural development with physical features provides a widely shared 'sense of place'. The areas grade into one another and do not need to be represented by sharp lines on the ground. Against this background, English Nature and the Countryside Commission, helped by English Heritage, have prepared a joint map of England to reflect the distinctiveness of local areas. *The Character of England: landscape, wildlife and natural features* was published by the two agencies in December 1996. This identified 181 Character Areas, (amalgamating some of English Nature's Natural Areas). Descriptions of the Areas, or groups of Areas, have been prepared, allowing landscape and nature conservation to be considered within a single framework.

The Character of England will have a bearing on the minerals industries in a variety of ways, including by helping to shape restoration for biodiversity purposes so that it also fits into the area in landscape terms. The Countryside Commission has previously published advice on how mineral working should be integrated into the wider landscape in which it is located (*Opencast Coal Mining: Advice on landscape and countryside issues*, 1993, CCP 434), and the new approach takes this one step further by integrating landscape with nature conservation. This illustrates our points about the importance of mineral working taking into account a series of environmental objectives at the same time, and about the increasing interest in enhancing the 'ordinary' as well as the 'special' species, habitats and landscapes.

9 English Nature's Species Recovery Programme

The Species Recovery Programme predates Biodiversity: the UK Action Plan in promoting costed plans targeted on those specific native animal and plant species which are most at risk of decline or extinction. It is now English Nature's main vehicle for implementing the UK BAP Species Action Plans, and has a similar operational method of working in partnership with others, especially landowners.

English Nature launched the Species Recovery Programme in 1991 to restore, maintain or enhance populations of native plants and animals in severe decline or under threat of extinction. A costed action plan is prepared for each species, set out in a standard format. Each aims to restore the species to a satisfactory conservation status. Additional objectives are to make people more aware of the importance of species conservation and (through partnership projects) to advise landowners and land managers on appropriate habitat management for priority species. Re-establishment of species to former sites, or their introduction to suitable alternative areas, is often undertaken to restore sustainable populations in the wild.

The Programme began in a modest way, for example supporting projects for 20 species in 1993 (for £250,000). However, the Programme has in effect been a precursor to the species and habitats Action Plans on the more extensive basis identified in the *Steering Group Report*. The Species Recovery Programme has therefore been developed to become one of the vehicles for achieving the objectives of the UK Biodiversity Action Plan. The 1997/98 budget is over £500,000: recovery projects are being considered for 13 new species this year, in addition to the 29 new species on which preliminary studies began in 1996/97, plus continuing with earlier commitments. 5 species achieved their original recovery objectives in 1996/97. 50 Species Action Plans were commissioned last year for priority species of animals and plants. Birds protected under the Wildlife and Countryside Act 1981 are excluded from the Programme, though the Royal Society for the Protection of Birds is preparing comparable action plans for each of the 117 most scarce species identified in the Red Data Book on birds.

The many opportunities and benefits for the mineral industries arising from the Species Recovery Programme, such as publicity, sponsorship, planning gain and support from wildlife organisations, are detailed under other headings.

III IMPLEMENTING THE UK BIODIVERSITY ACTION PLAN

1 Relevance and benefits to the minerals industries

The Government has established a significant commitment to biodiversity both within the UK and internationally, and is seeking a wide base of support to carry the initiative forward in practice. The minerals industries will certainly have a part to play in this process and will no doubt wish to become involved.

First, action on biodiversity provides an opportunity to achieve environmental improvements which would not otherwise have happened. By achieving results which assist wider targets, that contribution will be more readily recognised in public than may have been the case with contributions to nature conservation in the past.

Second the minerals industries can satisfy all the factors identified by the UK Biodiversity Secretariat (in Guidance Note 2 *Developing Partnerships*) as those to consider when identifying potential partners in BAPs:

- influence over land management;
- impact on nature conservation;
- influence on policies affecting nature conservation;
- leverage (i.e. ability to influence and enlist others in nature conservation issues);
- potential for an increased contribution to nature conservation through the partnership; and
- source of information to inform nature conservation decisions.

Third, the future of the minerals industries appears to be increasingly bound up with high standards of environmental performance across a range of topics all at once. High standards in such matters as restoration, protection of the environment from visual damage, and the implementation of environmental management systems are necessary but may not be sufficient. Additional contributions on such matters as promoting biodiversity may increasingly be expected as a part of 'responsible industrial citizenship'. Objectives related to biodiversity may increasingly find their way into statutory development plans and become increasingly material to the consideration of planning applications. Industries which can show they have thought through their contribution to biodiversity will be at an advantage in demonstrating their conformity with planning policy when development control decisions affecting their interests are made. Such concepts as company biodiversity plans, possible as part of wider environmental management systems may be the way forward.

2 Implementation of the UK Biodiversity Action Plan

The UK BAP identified 59 steps to promote biodiversity. These are couched in terms of the

actions which the Government and its agencies will take, but also indicate a direction for contributions from other sources. Those of special relevance to the minerals industries are itemised below (step no. in brackets):

- Ensure that development control conforms to Government policies for the conservation of biodiversity (5).
- Utilise existing knowledge to identify prime biodiversity areas in the UK based on best available levels of data recorded and agree a strategy to protect and enhance them involving all interested parties (7).
- Continue to support measures for hedgerow management and restoration in England and Wales (23).
- Continue to protect ancient semi-natural woodlands and encourage forms of management which conserve their special characteristics (25).
- Continue to encourage the regeneration of woodlands (26).
- Continue to encourage a steady expansion of woodland and forest cover (27).
- Support the creation of community woodlands near population centres (30).
- Prepare action plans for threatened species in priority order... (33).
- Update and publicise guidelines on trans-locations, re-establishments, introductions and restocking (36).
- Consider a publicity strategy to explain the meaning and importance of biodiversity and explain what needs to be done to conserve and enhance it... (45).

The UK Biodiversity Action Plan has at its heart a concern to promote biodiversity through detailed Action Plans for the specific habitats and species which are most in need of assistance. These are derived nationally but will in large measure be implemented locally. The emphasis on priority habitats and species provides a starting point for the minerals industries, but this report will be more useful if it addresses the issues from the point of view of the minerals sector, cutting across the item-by-item basis of the UK BAP. This way, strategic and local roles can be identified for the minerals industries. Whilst the 59 steps provide an important policy framework and some indicators for the industry, we consider it more useful to suggest tasks for the minerals industries within the Action Plans rather than pursue actions under the 'steps' noted above.

The remainder of this part of the report, supported by the case examples and appendices, describes firstly what the minerals industries can potentially achieve and the channels for doing so, and secondly how the practical steps on the ground might fit into the pattern of industry operations and land management. Sections 3 to 7 below address in turn in turn what might be achieved:

- specific habitats which the industries may be well-placed to assist;
- specific species which the industries may be well-placed to assist;
- contributions to Local BAPs and their achievement;
- partnerships for biodiversity action which the industries can form;
- contributions to biodiversity through the planning system

Section 8 reviews the kinds of practical action which mineral companies can take on the ground in response to the opportunities. These are most obviously in the treatment of company land holdings, whether inside or outside working areas, and before, during or after operations. A review section advises on how the results of the minerals industries' contributions to biodiversity might most suitably be monitored and assessed. It also includes a summary (Table 5) of opportunities available to the minerals industries.

3 Priority habitats for the minerals sector

Habitat enhancement is particularly associated with the restoration phase of mineral working, though our approach encompasses a much wider range of possibilities. Habitats can be protected by the process of selecting areas for working. Temporary habitats can also emerge during the operational phase.

The habitats on unworked land within companies land holdings can be enhanced in association with restored land and by taking into account biodiversity interest on adjacent land outside company ownership. We have therefore sought to identify habitats of the kinds often found in areas worked for minerals. The protection of habitats in the selection of sites for working may be carried out at a strategic level within companies or through the mineral planning process. Sites may be protected by legislation or acceptance of the social and environmental costs outweighing the economic benefit. Regardless, there may be some habitats that are so special as to be avoided in selecting future working targets. This section identifies the main Natural Areas where such sites might be located and compares these to current patterns of extraction.

First, we examined the Action Plans for priority habitats and judged which kinds of mineral have the geological potential to be associated with them. The report for the Department of the Environment *Reclamation of Damaged Land for Nature Conservation* also follows a geological and geographical format with which Action Plans are comparable. We have therefore been able to combine Action Plans with advice on good practice in habitat creation and re-creation for biodiversity, together with our own knowledge of the industry. This proved especially helpful in addressing the restoration phase of mineral working. A related factor taken into account was the presence of internationally important nature conservation designations.

Our second approach to identifying habitats of relevance to the minerals industries derives from the Natural Areas approach (see Part II). With assistance from the GIS database held by the British Geological Survey, we have identified those Natural Areas which hold a particularly high density of sand and aggregates quarries (including dimension stone). This was an inexact study with an arbitrary threshold separating Natural Areas having lesser resource interest, and no allowance was made for different quarry outputs. The main Natural Areas of interest are indicated in Table 1 below. This analysis also links into our study of the role of Local Biodiversity Action Plans, discussed below, so the main Local BAP areas into

which the Natural Areas fall are also noted in Table 1.

Table 1 Natural Areas of special relevance to the minerals industries

<u>Natural Area</u>	<u>Mineral type</u>	<u>Local BAP(s)</u>
Mendip Hills	Limestone	Mendip
Wealden Greensand	Sand	Kent/Surrey
London Basin (esp. Thames Valley, Thames Basin Heaths)	Sand and gravel	Berks/Bucks/Surrey
Bedfordshire Greensand Ridge	Sand, silica sand	Beds/Bucks
Kesteven Uplands	Limestone	Lincolnshire
Trent Valley and Rises (esp. Trent Valley Washlands)	Sand and gravel	Staffs/Leics/Notts
Charnwood	Igneous	Leicestershire
White Peak	Limestone	Peak District
Southern Magnesian Limestone	Limestone	Wakefield
Coal Measures	Sandstone	Lancashire
Durham Magnesian Limestone Plateau	Limestone	Durham
West Anglian Plain	Sand and gravel	Northants/Cambs/Beds
Dorset Heaths	Sand and gravel	Dorset

Our analyses from both routes demonstrated that interaction can be expected between mineral workings and a wide range of priority habitat types. The delineation of Natural Areas is strongly related to their underlying geology, so in many instances mineral working was either well represented in a Natural Area or largely absent from it. The profiles for the more heavily worked Natural Areas usually mention mineral working but disappointingly fail to provide detailed advice on the part mineral companies can play to nurture the distinctive local qualities. *We recommend that this is remedied as the Natural Areas concept develops.*

The Action Plans for priority habitats provided a slightly better basis for advice. References to mineral working in them are again sparse, but do sometimes give encouragement to the role of mineral working. For example, the Action Plan for *lowland heathland* proposes that “in areas that support lowland heathland, there should be a presumption in favour of re-establishing heathland on derelict land or land that has been used for mineral extraction”.

From the Action Plans particularly, we have identified key habitats for the minerals industry to tackle. These are listed in Appendix 1 Table A, which also notes other habitats, for which Action Plans have not yet been prepared, which might prove significant to the minerals industries. Our analysis of the opportunities for the minerals industries to enhance the biodiversity of each of the habitats for which Action Plans have been prepared is considered in more detail in Appendix 2. Appendix 2 suggests for each habitat, the kinds of mineral most likely to be worked within or near them, and gives examples of places or areas where they

may be found. It gives examples of actions the industry can take before, during and after mineral working and also to contribute to the biodiversity of adjacent land (whether or not under the control of the industry). The examples are not exhaustive, and many more opportunities are likely.

The starting point for the minerals industry should be that habitats identified as priorities for protection and enhancement should not be worked. Nevertheless, there may be old permissions which affect these habitats, or mineral working may take place where the habitat was degraded before mineral working began, and an opportunity for reinstatement now arises. Of still wider-ranging potential is the opportunity which arises when mineral working takes place on non-priority land adjacent to a priority habitat: this offers the possibility of either extending the range of the priority habitat or taking other action to enhance its biodiversity. What is entirely clear is that the impact of mineral working on biodiversity is by no means limited to careful management of sites which are already themselves of biodiversity value. This substantially broadens the range of priority habitats which the minerals industries might be able to enhance (though we have restricted our analysis to habitats for which costed BAPs have already been prepared). It also demonstrates the importance of mineral companies examining the nature conservation context in which their operations take place or are proposed.

A characteristic range of species is usually associated with each identified key habitat. Some of these species are themselves the subject of attention in the UK BAP, whether in the short list, middle list or long list. Mineral working which may affect any of these habitats may therefore also be able to enhance the prospects for these species. Appendix 2 notes the more significant species associated with the particular habitats and records many that are entered in the UK BAP lists.

Habitats exist in a pattern connected by networks of linear features and intermediate 'stepping stones' (e.g. ponds) along which wildlife – from mammals to seeds – can travel. The UK Biodiversity Action Plan refers to the importance of enhancing these features within the overall pattern, with a specific recommendation on hedgerows (see above). Likewise, scope for the enhancement of green corridors and of networks linking habitats and for the creation of ecological 'stepping stones' is specifically recognised in PPG 9 *Nature Conservation*. Mineral companies often control substantial areas of land and so are particularly well placed to contribute to biodiversity by enhancing the opportunities for the movement of wildlife through green corridors. There may be scope to phase workings in such a way as to ensure that habitats do not become isolated and to restore worked land to remedy pre-existing problems of habitat fragmentation. Action on these matters may well be feasible at relatively little cost, and the opportunities are likely to be all the greater in areas where a series of mineral workings are undertaken in the same area, such as along some river valleys. Here there may be benefits from co-operation between a number of companies in the same area co-ordinating their efforts for biodiversity purposes.