Epping Forest

MANAGEMENT PLAN

SUMMARY DOCUMENT

April 1998 to March 2003

Approved by the

Epping Forest & Open Spaces Committee

9th March 1998

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EPPING FOREST MANAGEMENT PLAN

POLICY STATEMENT

The purpose of the Forest, as made clear in the Epping Forest Act 1878, is to provide an open space for the recreation and enjoyment of the public.

In accordance with the requirements of the Act, the Conservators will keep the Forest unenclosed and unbuilt on save as allowed by statute in the interests of management and public enjoyment. They will protect the Forest's trees, pollards, shrubs, heather, gorse, herbage and other vegetation. They will preserve the Forest's 'natural aspect' so far as is possible so that the Forest seems to be a natural place.

Additionally, and having regard to the provisions of the Wildlife and Countryside Act 1981 and the Forest's candidature as a Special Area of Conservation, the Conservators will protect the Forest's fauna and endeavour to maintain the special interest of the Forest's habitats.

The Forest will, therefore, be a public open space which seems to be natural and where a broad range of local native flora and fauna will be found.

Protecting and conserving the Forest are pre-requisites to providing the open space envisaged by the 1878 Act. The Conservators will ensure that future generations are able to enjoy the unique qualities of Epping Forest.

OUR VISION
Epping Forest conserved and protected as an open space
for the recreation and enjoyment of the public

CORPORATION OF LONDON

INTRODUCTION

In the 1870's, the Corporation of London had been concerned that free access to open countryside was being threatened by landowners wanting to enclose common land and by building development. It therefore embarked on an ambitious project to protect what it could of London's countryside. As a result, two Acts of Parliament were passed in 1878: the Epping Forest Act, which made the Corporation of London the Conservators of the Forest, and the Open Spaces Act, which enabled the Corporation to acquire and safeguard land within 25 miles of the City for the "recreation and enjoyment" of the public.

The Epping Forest Act 1878 lays down a legal framework for the preservation and management of Epping Forest, requiring the Conservators of Epping Forest to:

1. keep the Forest unenclosed and unbuilt on as an open space for the recreation and enjoyment of the public;

2. protect all trees, pollards, shrubs, underwood, heather, gorse, turf and herbage;

3. as far as possible preserve the natural aspect of the Forest;

4. preserve and protect Ambresbury Banks and all other ancient earthworks and remains;

5. preserve and maintain Queen Elizabeth's Hunting Lodge as an object of public and antiquarian interest;

6. preserve the Forest's deer.

Under the Corporation, the responsibility for the Forest is vested in the Epping Forest and Open Spaces Committee comprising twelve members of the Corporation and four Verderers. The Verderers, who provide essential links between the Committee, the public and the Forest's officers, are elected every seven years by the Forest's Commoners. The policies and directives of the Committee are carried out by the Corporation's Epping Forest Department. The entire net cost of the Forest's management is borne by the Corporation from its private investments with no contribution from the public purse.

On 6 May 1882 Queen Victoria visited Epping Forest where she declared:

"It gives me the greatest satisfaction to dedicate this beautiful Forest to the use and enjoyment of my people for all time".

Her statement was greeted with great enthusiasm by the huge crowd. This ancient woodland of over 6,000 acres (2,400 hectares) had been saved for the nation, thanks to the intervention of the Corporation of London.

As with the Act, the Management Plan addresses itself first and foremost to the task of preserving and managing the Forest, recognising that this primary objective is fundamental to the Forest's ability to fulfil its key public access role.

The Plan, the concluding product of 12 meetings of the Management Plan Steering Group, consolidates and builds on the enormous amount of informed management work within Epping Forest over the past decades. Following a logical and recognised format, the Plan takes on board the recommendations of those 12 meetings and culminates in the generation of a comprehensive register of projects to achieve its stated objectives.

The **Management Plan Summary,** by its very nature, does not fully address all the complex issues, but is intended to give an informative overview to the preservation and protection of Epping Forest and the active and informed interventive management which is implicit in 'preserving and protecting'.

DESCRIPTION

Epping Forest: A Unique Open Space

Epping Forest is truly a unique open space, managed as it is in such a way that it feels to the visitor to be a natural place. It is this *natural aspect* that distinguishes the Forest as an open space and gives to the Londoner visiting the Forest a taste of the wilderness and remoteness of the National Parks.

At over 6000 acres the Forest is the largest public open space in Essex. It provides opportunities for many recreational pursuits, for organised outdoor sports and games, and for nature study. Its historic and attractive landscape is the principal feature of the local environment providing a backcloth to the lives of hundreds of thousands of people.

Epping Forest is a valued haven not only for the public but also for the Forest's many natural inhabitants. In terms of its scientific interest, Epping Forest is of international importance. Leaving aside those areas set apart for sports and games, virtually the whole Forest is a Site of Special Scientific Interest as designated by English Nature. The national importance of the site is underscored by its inclusion in D A Ratcliffe (1977) A Nature Conservation Review. It also contains two Scheduled Ancient Monuments: Ambresbury Banks and Loughton Camp.

Epping Forest, lying as it does to the north-east of London, forms a large crescent of land stretching from Wanstead in the south northwards towards Epping, with a portion, the Lower Forest, just north of the town of Epping.

The total length of the Forest is nineteen km (twelve miles). The southern end provides a welcome green wedge in the urban development of East London. The northern part is fringed by the Metropolitan Green Belt, approximately 2,000 acres of which are now owned by the Corporation of London as buffer land to the Forest itself.

The main part of the Forest lies on a ridge of high land, rising sharply between the valleys of the River Lea to the west and the River Roding to the east. From Ambresbury Banks, a high point of 117 metres (384 feet), the ridge slopes southwards to Wanstead Flats where the Forest covers a more level surface.

Epping Forest is one of only a few remaining large-scale examples of ancient wood-pasture in lowland Britain and has retained habitats of high nature conservation value including ancient semi-natural woodland, old grassland plains and scattered wetland. The semi-natural woodland is particularly extensive, forming one of the largest coherent blocks in the country. Most is characterised by groves of overmature pollards and these exemplify all three of the main wood-pasture types found in Britain: beech-oak, hornbeam-oak and mixed oak. The Forest plains are also a major feature and contain a variety of unimproved acid grasslands which have become uncommon elsewhere in Essex and the London area. In addition, Epping Forest supports a nationally outstanding assemblage of invertebrates, a major amphibian interest and an exceptional breeding bird community.

North of the Wake Arms, the Forest's geology is dominated by glacial clays, often inter-mixed with gravel, but south of this its character changes. A steep ridge, although broken in places, extends south west as far as Pole Hill; the highest parts of this are capped with Pebble Gravel, overlying sandy Bagshot Sands, with clays confined to the lower slopes and valley bottoms. Large areas of the Forest to the south of here are on London Clay, relieved only by a broken line of low hills of glacial gravel stretching southwards from Earls Path to Walthamstow Forest. The extensive gravels around Wanstead and Leyton Flats are more recent, having been laid down by the Thames, Lea and Roding

when they were larger and flowed at a higher level than today. This varied geology gives rise to a mosaic of soil types from neutral soils to acidic loams and from impervious clays to well-drained gravels. To a large extent these soil patterns have dictated the pattern of vegetation in Epping Forest.

Epping Forest's biological importance is inextricably linked to its remarkable land-use history, a legacy which has moulded today's much treasured Forest landscape. Epping Forest was traditionally managed as wood-pasture in which the trees were lopped or "pollarded" above the reach of browsing animals to produce a crop of wood. This practice also prolonged the life of individual trees and has created a distinctive woodland structure markedly different from that found under other forms of woodland management. During the 19th century this traditional system of wood management declined and eventually ceased in 1878 under the Epping Forest Act. Since the early 1980's, pollarding of veteran and maiden trees has been successfully reinstated by the Conservators of Epping Forest in several areas. Owing to this history much of the woodland is dominated by pollards of considerable age, with some of coppice origin indicating an even older system of management. Pedunculate oak pollards are scattered throughout and occasionally dominate forming areas of oak wood-pasture but are less frequent in the vicinity of beech pollards. The understorey frequently consists of Holly (*Ilex aquifolium*), but Hazel (*Corylus avellana*) is rare. Dead and rotting wood in the old pollards, particularly those which are still standing, is of considerable value to many invertebrates and in particular to beetles (*Coleoptera*). The pollards also add to the structural diversity of the woodland which is important to birds, many of which feed on the rich invertebrate fauna.

There are at least four distinct woodland stand types in Epping Forest, including examples of three which are modified through wood pasture management. The Pedunclulate Oak-Beech is of particular interest since the Beeches are the only remnant of the native distribution of the tree in Essex. This type occurs in the higher parts of the Forest, on the valley slopes of the pebble gravel cap and on soils derived from Bagshot Sands and Claygate Beds. Good examples of this stand type are present in Great Monk and Little Monk Woods, St Thomas' Quarters and near to Genesis Slade and Goldings Hill Ponds. The Beech pollards are interspersed with Pedunculate Oak (*Quercus robur*) and Ash (*Fraxinus excelsior*). Although Hazel and Rowan (*Sorbus aucuparia*) are generally characteristic in the shrub layer of this vegetation type, these species are infrequent in this stand type in Epping Forest, and this is consistent with the long history of wood-pasture management. Holly is the only shrub frequently found, often forming very dense stands having increased in extent with the lack of grazing. The ground flora in these areas is very sparse due to dense shading and deep leaf litter; a consequence of the cessation of pollarding. In areas where light penetration is greater, Purple Moor Grass (*Molinia caerulea*), Creeping Soft-grass (*Holcus mollis*), Soft Rush (*Juncus effusus*), Bracken (*Pteridium aquilinum*), scattered Ling (*Calluna vulgaris*) and Bramble (*Rubus fruticosus*) are present.

The second notable woodland type, Pedunculate Oak-Hornbeam, is largely confined to the London Clay around the margins and to the south of the Forest, for example in Honey Lane Quarters, Highams Park, Walthamstow Forest and Bury Wood. Hornbeam pollards predominate with varying densities of Pedunculate Oak, the latter more common on the margins of woods, and small quantities of Silver Birch (*Betula pendula*). The Pedunculate Oak-Hornbeam woodland seen in Epping Forest is, again, a wood-pasture variant of this stand-type with Holly the dominant species in the shrub layer, and Hazel very scarce. The ground flora in these areas is similarly species-poor with deep leaf litter and only occasional patches of Bramble, Creeping Soft-grass and Soft Rush. In several places there is a gradation from Oak-Hornbeam to Oak-Beech woodland giving rise to an unusual association of Beech and Hornbeam.

A third woodland type, Lowland Birch-Pedunculate Oak, occurs both as ancient wood-pasture and as recent secondary woodland invasive on former plains and grasslands. Even this secondary woodland

contains scattered oaks of great antiquity, which were present at a low density on the original grasslands. The cessation of grazing has led to an increase in the area of this kind of woodland at the expense of grassland. The main stands of this secondary community are on the pebble gravels. Stands of Birch-Oak woodland in Deershelter Plain and between Jack's Hill and Long Running are good examples of this. Birch is dominant in the canopy with occasional degenerate oak pollards, young oaks, and a rather thin understorey of young birch. Purple Moor-grass and Bracken are both locally abundant especially where the canopy is thin. This type of woodland is frequent around The Hollow Pond, Walthamstow. Rowan-Birch woodland is also present as secondary stands.

Epping Forest also includes many areas of open grassland. These vary from acid grassland with relict heathland to mown neutral grassland and they very much add to the habitat diversity of the Forest. Many are old plains, the result of the former management as wood-pasture. Areas of acidic grassland with heathland are generally dominated by a mixture of fine-leaved grasses, including Red Fescue (*Festuca rubra*), Mat-grass (*Nardus stricta*), Wavy Hair-grass (*Deschampsia flexuosa*) and Common Bent (*Agrostis capillaris*). In marshier areas, Purple Moor-grass frequently becomes dominant. Broad-leaved herbs typical of acidic grassland and heathland are frequent, including Sheep's Sorrel (*Rumex acetosella*), Heath Bedstraw (*Galium saxatile*), Petty Whin (*Genista anglica*), Slender Rush (*Juncus tenuis*), Tormentil (*Potentilla erecta*), and Ling (*Calluna vulgaris*). Sunshine Plain supports one of only very few examples of wet dwarf-shrub heath remaining in Essex and the London area. This contains both Ling and Cross-leaved Heath (*Erica tetralix*) as well as Sharp-flowered Rush (*Juncus acutiflorus*), Bulbous Rush (*Juncus bulbosus*), Heath Rush (*Juncus squarrosus*), Common Cotton-grass (*Eriophorum angustifolium*) and Oblong and Round-leaved Sundew (*Drosera intermedia* and *D. rotundifolia*). The last three plants do not grow in Essex outside Epping Forest. Other areas of acidic grassland include Long Running, Deershelter Plain, Strawberry Hill Heath, Warren Hill Heath and Wanstead Flats. The botanical quality and size of many of these areas has declined owing to cessation of grazing and subsequent colonisation by Birch, Pedunculate Oak, Hawthorn and Blackthorn. However, recent conservation management including the limited grazing experiment at Long Running has been successful in regenerating grassland and heathland and in reducing or reversing scrub encroachment.

There is an abundance of bogs, pools and ponds in the Forest, some of which are of considerable botanical and entomological interest. Several ponds contain the Water Violet (*Hottonia palustris*), a species which has become uncommon in Essex and the London area and is still decreasing. Goldings Hill Ponds are botanically among the most diverse ponds in the Forest with Sweet Flag (*Acorus calamus*), Lesser Marshwort (*Apium inandatum*), Flowering Rush (*Butomus umbellatus*), Bogbean (*Menyanthes trifoliata*) and the liverwort, *Ricciocarpus natans*, which is rare and decreasing in Essex. Bogbean also grows in Strawberry Hill Pond. Another Essex rarity which grows only in the Forest, in Wake Valley Pond, is Marsh St John's Wort (*Hypericum elodes*). Bladderwort (*Utricularia australis*) occurs in half a dozen ponds in and just outside Great Monk Wood, including Baldwin's Hill Pond, Earls Path Pond and the Wake Valley Pond complex.

The invertebrate fauna of the Forest, and its associated habitats, is of outstanding national significance, notably for a number of communities associated with overmature trees and dead wood. The size of the Forest, and the pollarding of Oak, Hornbeam and, in particular, Beech, have ensured a continual abundance and diversity of otherwise rare niches for invertebrates. The subcortical and dead wood fauna is exceptional including 66 Red Data Book and nationally notable species of beetle, fly and spider, most of which are now restricted entirely to large blocks of ancient forest. Several species occur at only one or two other localities in Britain, the fauna probably having most in common with that of Windsor Forest. The rarer species associated either with dead limbs on standing trees, or with the dead wood of fallen branches and trees include the beetles *Megapenthes lugen*s (Endangered*),

Ampedus cardinalis (Vulnerable*), *Biblioporus minutus*, *Malthodes crassicornis*, *Notolaemus unifasciatus*, *Osphya bipunctata*, *Platypus cylindrus*, *Ptenidium gressneri*, *Rhizophagus picepes*, *Silvanus bidentatus* and *Synchita separanda*, (all Rare*); the flies *Ctenophora falveolata*, *Trichoparaeia seria* (both Endangered), *Myennis octopunctata* and *Xylomyia maculata* (both Vulnerable); and the spider *Lepthyphantes midas* (Rare). An additional 55 nationally notable species associated with this habitat have been recorded from the Forest this century, making this one of the most important localities for this fauna in Britain.

The fauna associated with long-established sap runs and with damp or water filled rot holes in old trees is similarly exceptional, the latter mircohabitat being frequent in the crowns of the old pollards. Again the species of these communities are mainly confined to large areas of ancient Forest. The rarer species include the beetle *Prionocyphon serricornis* (Rare), and the flies *Mallota cimbiciformis* and *Pocota personata* (both Vulnerable), *Orthopodomyia pulchripalpis* (proposed RDSB category 2: Vulnerable), *Brachypalpus laphriformis* and *Myolepta luteola* (both Rare) in rot holes, and the flies *Ferdinandea ruficornis* (Vulnerable), *Aulacigaster leucopera*, *Oedalia apicalis* and *Systenus pallipes* (all Rare) occurring in sap runs. An additional 9 nationally notable species associated with these habitats have been recorded from the Forest.

Other well represented communities associated with the overmature trees are those occurring in bracket fungi, including the beetles *Rhizophagus oblongicollis* (Endangered) and *Enicmus rugosus* (Vulnerable), as well as 18 nationally notable species; and the inquiline fauna of ants' nests living in old stumps and rotting logs on the ground. This includes the beetles *Batrisodes buqueti* (Endangered and probably the most restricted species in the Forest), *Batrisodes venustus* and *Amauronyx maerkeli* (both Rare) as well as 2 nationally notable species.

Although the prime interest for invertebrates lies in the trees of the Forest, the fauna associated with the various waterbodies, watercourses and associated wetland is also of considerable note. A number of species inhabit the sides of shady woodland streams, including the flies *Limnophila pictipennis* (Endangered) and *Erioptera nigripalpis* and *Epicypta limnophila* (both Rare), while those of the Forest's ponds and marshes with luxuriant vegetation support a rich aquatic and semi-aquatic fauna including the beetles *Hippodamia tredecimpunctata* and *Phytobuis quadrinodosus* (both Rare) and the flies *Chrysogaster macquarti*, *Orthonevra brevicornis*, *Phalacrocera replicata* and *Sciomyra simplex* (all Rare). The waterbeetle *Hydroporus rufifrons* (Vulnerable) has been recorded, although this may have recently become extinct in the Forest. An additional 65 nationally notable species of dragonfly, waterbug, beetle and fly associated with various wetland habitats have been found in the Forest. The assemblage of Dragonfly species alone in the Forest is outstanding, with 20 species present including the nationally notable Downy Emerald Dragonfly (*Cordulia aenea*). A small number of nationally notable phytophagus species are associated with grassland herbs, notably those on drier acid soils, and the fauna associated with herbivore dung, particularly that living in deer dung, includes 6 notable species. In total, over 360 Red Data Book and nationally notable invertebrate species have been recorded from the Forest.

The range and number of wetland habitats in the Forest also support an outstanding assemblage of amphibians. The list includes significant numbers of five of the native amphibians: Smooth Newt (*Triturus vulgaris*), Great-crested newt (*Triturus cristatus*), Palmate Newt (*Triturus helveticus*), Common Toad (*Bufo bufo*) and Common Frog (*Rana temporaria*). The Forest also supports 4 reptiles: the Adder (*Vipera berus*), Grass Snake (*Natrix natrix*), Slow-worm (*Anguis fragilis*) and Common Lizard (*Lacerta viparis*).

Owing to the wide variety of semi-natural habitats present, the Forest supports an outstanding bryophyte flora, with 177 species in evidence. A number of these species are now extinct elsewhere in Essex and the London area. One is a rarity, the moss *Zygodon forsteri*, found on Beech pollards. In addition, there are six liverworts *Ptilidium pulcherrimum* (an epiphytic liverwort), *Ricciocarpus natans*, *Nardia scalaris*, *Scapania irrigua*, *S. nemorosa* and *Calypoycia muellerana*, each with only a handful of records in Essex, most of them in Epping Forest itself. However, the Forest's bryophytes have declined in variety as a result of problems associated with the abandonment of wood pasture management (shading, death of pollards, scrub on the heaths), human interference and atmospheric pollution. The Forest also supports 700 basidiomycete and at least 20 ascomycete fungi.

Finally, the Forest contains a good community of breeding birds characteristic of woodland and scrub. At least 48 breeding species are present including Nightingale, all three species of Woodpecker, Sparrowhawk, Woodcock, Wood Warbler, Tree Pipit and Tawny Owl. Again, it is the sheer area and diversity of semi-natural habitat that make the Forest attractive to these species.

Note:* The terms Endangered, Vulnerable and Rare refer to status categories 1,2, and 3 respectively in Shirt, D B (ed.) 1987. British Red Data Books 2, Insects. The status of individual species is subject to periodic review.

IDEAL (LONG-TERM) MANAGEMENT OBJECTIVES

1. To preserve and protect the physical and biological integrity of the Forest as a unique public open space.

2. To ensure the sustainable use of the Forest for the recreation and enjoyment of the public.

3. To protect and to prolong the life of all the veteran trees and pollards of the Forest and to ensure new generations of trees are promoted to provide successors of equivalent wildlife value.

4. To maintain the ancient, semi-natural woodland in a favourable condition.

5. To restore and thereafter maintain the Forest plains, meadows, other grasslands and heaths in a favourable condition.

6. To enhance and thereafter maintain the network of Forest ponds, bogs, streams, ditches and their banks in a favourable condition.

7. To protect and maintain the condition of sites of historic and landscape importance, in particular Wanstead Park, Ambresbury Banks, Loughton Camp and the Purlieu Bank.

8. To enhance the wildlife value, increase the structural diversity and thereafter maintain in a favourable condition the Forest's secondary woodland and scrub, scrub-grass mosaics, glades, slades, rides, Green Lanes and road verges.

9. To encourage the educational use of the Forest by the widest possible range of people.

10. To promote scientific monitoring and research with the aim of establishing the Forest as a nationally-recognised centre for ecological/nature conservation research.

The definition of Favourable Condition

Habitats
A natural habitat or community will be taken as favourable when:
- the area/s that it covers within the site are stable or increasing, and
- the specific structure and functions which are necessary for its long term maintenance exist and are likely to exist for the foreseeable future, and
- the condition of its typical species is favourable

The important factors are that the habitat is stable or increasing in area, that it is sustainable and that the condition of typical species is also favourable

Species
A species will be taken to be in favourable condition when:
- it is maintaining itself on a long-term basis as a viable component of its natural habitats
- the natural range of the species, within a site, is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis

In short, the population must be viable in the long-term, the range must not be contracting and sufficient habitat exists to support the species in the long-term.

RATIONALE: Ideal Management Objective 1 To preserve and protect the physical and biological integrity of the Forest as a unique public open space.	
The Forest as a resource to be preserved and protected	The preservation and protection of the Forest is a fundamental objective, satisfying as it does the requirements of the Epping Forest Act 1878, whilst in addition having due regard to the Wildlife and Countryside Act 1981 and the Forest's candidature as a Special Area of Conservation. Preservation and protection are achieved by ensuring that the boundaries of Epping Forest remain intact and open to the public and that the physical extent of the Forest, and the habitats contained therein, are not reduced in any way. The continuing physical presence of the Forest *per se* ensures the public can enjoy it and wildlife is able to inhabit it. For example, for the rare and endangered species of fungi found in the Forest, many of which are vital for the continued health of the trees, so little is known about their ecology that assuring the continued presence of extensive tracts of their habitat is the only effective means of their conservation.
The provision of open space	The provision of Open Space is the central purpose of the Epping Forest Act 1878, to be achieved by protecting the varied vegetation of the Forest and preserving, as far as possible, what was deemed its 'natural aspect' and what might more accurately be described in ecological terms as its semi-natural inheritance. The large tracts of ancient, semi-natural woodlands and the heather-dominated heathlands were amongst the habitats explicitly recognised by the provisions of Section 7(3) of the Act. The history of the Forest as a pasture-woodland common used extensively by people for more than 1000 years is fundamental to the successful combination of open public access and conservation of the natural (or semi-natural) habitats. Its legacy is to ensure that the types of conservation management work required generally facilitate public access for recreation, just as in the past the management by the commoners and others facilitated their access for their sustenance. The very presence of the Forest allows the public, unless specifically restricted, to use all parts of the Forest by a variety of means, the most fundamental of which is access on foot. Other types of recreational use may require active management or more specific provisions, powers for the control of which were granted under Section 36 of the Epping Forest Act 1878 and under the City of London (Various Powers) Acts 1971 and 1977. Active management of recreational activities and liaison with user groups is dealt with under Objective 2.
Operational Management Objective 1: The fundamental nature of this key objective demands that the operational should be the same as the ideal objective	

RATIONALE: Ideal Management Objective 2 To ensure the sustainable use of the Forest for the recreation and enjoyment of the public.	
The essential open space service	This objective is about enabling the public to enjoy the Forest without causing lasting or irretrievable damage or conflict of recreational use that cannot reasonably be controlled. The open space service is essentially the Forest and its natural aspect conserved and protected as required by the Epping Forest Act 1878. Some parts are naturally less accessible than others and it is not the Conservators' general policy to 'tame' the Forest so that it loses its essential character. However, to prevent the purpose of the Forest being frustrated, it may be necessary to clear main access routes which have become obstructed or carry out work to maintain general access e.g. open ground colonised by extensive bramble. Whilst it is appropriate in Epping Forest (regard being had to its natural aspect) for old trees to be allowed to die and collapse naturally, trees will be made safe where they present a public danger. Notwithstanding the nature of the Forest, it has been possible to provide three easy access paths, and other facilities for visitors with disabilities will be explored. Generally public access does not conflict with the Forest's conservation but occasionally it may be necessary to steer the public away from a particularly sensitive feature by, for example, the judicious placing of brushwood or some other natural device. It has, however, been necessary to introduce management controls in respect of some activities. Controls are also necessary to minimise conflicts between recreational uses. Activities requiring particular management are horseriding, cycling (mountain biking), orienteering, angling and model aircraft flying. The impact of recreational pursuits on the Forest requires regular monitoring. Recreational pursuits are constantly evolving and there are surges in the popularity or fashionability of certain outdoor sports and recreational activities. Such changes need to be monitored to assess their impact and the Management Plan updated accordingly.

RATIONALE: Ideal Management Objective 2 continued	
Special facilities	In addition to the 'basic' Forest, a number of special facilities are provided to enhance visitor enjoyment. These include bridges, culverts, car parking areas, toilets and simple refreshment facilities. Special facilities have also been provided for horseriders in the form of an extensive network of all year round surfaced horserides. Generally the current provision of car parks and refreshment kiosks is considered adequate. Any expansion of parking areas would have to be weighed against the loss of vegetation and the additional visitor pressure on the Forest that would arise. It is also important that special facilities should be designed and sited so that they do not offend against the natural aspect. The cumulative effect on the Forest also requires monitoring. For this, and for reasons of health and safety, regular inspections of facilities need to be carried out. An information service has also been established and this is especially valuable in helping to ensure the Forest's sustainable use.
Sports and games	Whilst the Forest is intended primarily for informal recreation, the Epping Forest Act empowers the Conservators to set apart areas of the Forest for sports and games requiring grounds. Currently there are 60 football pitches, one 18-hole and two 9-hole golf courses, three cricket grounds and two model aircraft flying sites. The Conservators consider that the present balance between facilities for sports and the wider Forest for informal recreation is satisfactory.
Operational Management Objective 2: This remains the same as the Ideal Objective	

RATIONALE: Ideal Management Objective 3 To protect and to prolong the life of all the veteran trees and pollards of the Forest and to ensure new generations of trees are promoted to provide successors of equivalent wildlife value.	
The protection of individual veteran trees	Epping Forest is renowned because it contains immensely old trees of great character and individuality. In looking at this large expanse of pasture-woodland, it is the individual trees that must be given attention first and foremost. As Rackham (1986) has stated: *"Ten thousand Oaks of 100 years old are not a substitute for one 500 year old Oak."* The veteran pollards are the very essence of Epping Forest's uniqueness.
The problem of the discontinuity in pollarding since the mid 19th Century	The trees can be protected from direct physical harm by man relatively simply, with only the exception of those where there is an immediate hazard and work must be carried out in the interests of safety if not the interests of the tree. However, prolonging their lives is unfortunately much more difficult, at least for Beech and Oak, due to the discontinuity in pollarding since the mid 19th Century. In a regular pollarding cycle the lives of the majority of the trees can be prolonged greatly by the act of re-pollarding; certainly long enough for sufficient successors to become old enough to provide similar habitats and trees of similarly interesting character. However, most of the old pollards of the Forest now have poles of over 120 years of age on their bollings. Their supply of viable dormant buds may be too small or their condition may be too poor to allow them to respond to the stresses of being re-cut.
The effects of drought	The droughts of 1976 and subsequent years have also put many trees into a decline in health which precludes prolonging their life by re-cutting.
Top heavy trees	Many of the healthy trees are top-heavy and are in danger of splitting or keeling over and dying, and the rate of loss is increasing. There are too many trees, around 100,000 pollards and Beech "coppards", to be coped with. Even if staff resources were combined with outside contractors in order to pollard all the trees in a cycle, it would still not be possible to reach some trees in time. In addition there are some trees that should not be re-cut because of their particular prominence or habitat value. The shade provided by the canopy may be important, while it lasts, in preserving the existing state of the Forest floor (eg Monk Wood). These trees would be better left to collapse and decay naturally.

Reasons for re-pollarding veteran trees	The veteran pollards, which the Conservators have an unqualified duty to protect under the Epping Forest Act 1878 (Section 7(3)), are the very essence of Epping Forest's uniqueness. They support an internationally important diversity of wildlife, especially animals and plants reliant on dead wood. More than 50% of the 400-plus Red Data Book insects that the Forest supports rely on the dead wood provided by these veteran trees. (The Red Data Book is an official listing of the rarest and most endangered species in the UK). The continuation of pollarding is vital to retain the Forest's unique character, to prolong the lives of the veteran trees and to provide successors which will be of equivalent importance for both wildlife and landscape in the future. In addition pollarding management will: • restore the more open pasture-woodland structure of the Forest, favouring public access, and the animals and plants of open habitats for which the Forest is renowned; • continue more than 1000 years of tradition; • provide an international scientific and educational attraction; • prevent veteran trees becoming top-heavy thereby reducing the risk of collapse.
Reasons for pollarding maiden trees	Since 1981 over 700 new pollards of various sizes have been created. The promotion of a new generation of pollards is especially important to close the generation gap created by the 19th Century cessation of pollarding and to ensure that the successors to the present veterans will be of equivalent wildlife and landscape value. In most instances to achieve this aim maiden trees must be pollarded. In other situations some trees must be given the space to become spreading and large in girth. Creating new pollards from maiden trees will leave options open for the future. Some could be entered into a pollarding cycle, whilst others could be left to grow out into their new more spreading shape or developed as overgrown pollards. Additional reasons for creating new pollards from maiden trees are: • to prolong the life of trees, especially Beech and Hornbeam; • to create trees of spreading shape containing areas of dead wood, providing a much broader range of specialist niches for wildlife; • continuing more than 1000 years of tradition • creating more open conditions for people and wildlife • to ensure the Forest is a leading site for future advances in pollarding techniques.
Operational Management Objective 3: For the above reasons, the Ideal Objective 3 needs to be rephrased by including the words "where possible and desirable" in the **Operational Objective 3** as follows: **"To protect and, *where possible and desirable*, to prolong the life of all the veteran trees and pollards of the Forest and to ensure new generations of trees are promoted to provide successors of equivalent wildlife value."**	

Enacting Operational Objective 3	Since 1981, annual pollarding work has been a regular feature of Forest management with over 1,200 veteran pollards re-cut in that time. It is proposed that this work will continue. It is proposed that the 3 main pollard tree species, beech, hornbeam and oak, should be dealt with by separate prescriptions because each responds differently to re-cutting. **Summary of Hornbeam re-pollarding proposals:** It is proposed to cut groups of between 15 and 40 old pollards depending on the density of the pollards and the amount of natural regeneration underneath them. Most groups would be less than 35 trees. The aim would be to cut an average of 150 old pollard trees per year with a maximum of 200 in any one year. Over the proposed 35 year cycle this would result in approximately 5250 old pollards being re-cut. This would amount to a total re-pollarded area of approximately 87 hectares (216 acres). The total number of pollards re-cut over the 35 year cycle would represent just over ¼ of the estimated 19,360 Hornbeam pollards in the Forest. As a proportion of all the estimated 46,000 old pollards in the Forest, only 1 in 9 pollards would be re-cut as part of this pollarding cycle. Once the considerable number of "coppards" is taken into account, the proportion becomes even less. This work needs to be monitored carefully and reviewed at each 5-yr Plan review. The monitoring should include a wide sample of trees including re-visiting the trees re-cut prior to 1997 and analysed by Dagley & Burman (1996). The health of the Hornbeam pollards not included in the cycle should be kept under review. **Summary of works on veteran Beech and Oak to promote re-growth:** For old beech pollards, there is limited experimental work proposed during the next 5 year period. The work will be combined with planned safety work and will amount to approximately 5 trees per year. A small amount of staged limb removal work on old oak pollards is proposed (100 trees maximum over 5 years). This will involve individual limb removal to promote regrowth whilst retaining a large proportion of the mature crown, a technique used successfully at Epping Forest and elsewhere. **Overstood pollards:** Finally, a management priority throughout the next five years will be to relieve all overstood veteran pollards from the damaging root and canopy competition of overshading trees that have grown up around them in the last 50 years or so. **Summary of maiden pollarding:** Maiden pollarding of smaller diameter trees is cost effective and straightforward. In addition to specific operations, such work will be carried out, as appropriate, as part of other woodland and scrub tasks. Larger diameter trees, especially Beech, also need to be tackled in specific circumstances to satisfy the pressing need for continuity of standing dead-wood habitat.

RATIONALE: Ideal Management Objective 4 To maintain the ancient, semi-natural woodland in a favourable condition.	
Managed forest versus the notion of "Wildwood"	Epping Forest is an immensely important cultural landscape with over 1000 years of history as a **managed** forest. Many of the 'wildwood' species have thrived in the open wood-pasture environment. The pollarding of the trees has allowed them to reach ages, and develop a character, that they could not have achieved otherwise. This is especially true of the two dominant species, Hornbeam and Beech. The resultant specialist standing dead-wood habitat is the most important attribute of the pollarded woodlands of the Forest**,** according it internationally important conservation status and giving the place the feel of a natural forest. As Edward North Buxton put it in his discourse on management ('Epping Forest' 1898): *"It goes without saying that in a natural forest we should preserve those features which are not of man's doing. As an instance of this may be mentioned the importance of retaining trees which are decaying, trees which are dead, trees which have been overthrown by the forces of nature, as well as those which are in full vigour....* *.....Our Forest is also a document of nature with its tale to tell. Its failures, its ruins should be preserved, as well as its vigorous youth. It should not be trimmed and garnished."* The case in favour of 'wildwood' is refuted by asking the question "why try and conserve something that does not exist by destroying or altering that which does exist and has enormous wildlife and cultural interest in its own right".
Pasture-woodland structure	The aim of this Plan must be to continue and add impetus to the restoration of this unique blend of habitats, to prevent the decline from complexity and variety into shaded uniformity.
Beech woodland	This habitat is of international importance. However, most of the old pollards are overgrown. Many areas were thinned during the last 120 years to promote standards and many of these have been drawn up as very straight trees with foliage limited to the uppermost canopy. Work is required to improve diversity in some places. Pollarding of **maiden trees** will be important for this. In addition, **minimum intervention** in places is valuable in allowing gaps to develop naturally and **natural regeneration** of Beech to occur.
Natural regeneration	Renewal of the Forest by natural regeneration will continue to be fundamental to the management of the woodlands.
Coppicing	The re-cutting of Bluehouse and Hatch Grove is proposed to protect their varied flora.
False high forest	The Plan recognises the historic legacy which has resulted in large areas of false high forest and advocates a practical management approach.
Operational Management Objective 4: This should reflect the recent recognition of the importance of the Beech woodland communities on acid soils by the candidate SAC status and should read: **To maintain the ancient, semi-natural woodland in a favourable condition, *with particular regard to the area of Beech on acid soils which is a habitat of international importance.***	

RATIONALE: Ideal Management Objective 5 To restore and thereafter maintain the Forest Plains, meadows, other grasslands and heaths in a favourable condition.	
The need for urgent action	For the reasons given in the 'Description' section, maintaining the open areas of the Forest is a very high priority which has for many years and indeed decades been the focus of much practical effort. Open habitats deteriorate rapidly and so there is an urgent need to start as much of any further planned restoration as possible within the first 5 year period of the Management Plan.
Restoring previously open areas now experiencing scrub and secondary woodland invasion	The ideal management objective would be to restore all Forest plains and previously open areas because most were old, if not ancient, and had developed a special ecological interest as a result. Their scrubbing over in the last 50- 60 years has resulted in relatively rare habitats being replaced by the common, widespread habitat of dense young secondary woodland. The overall biodiversity of the Forest has been diminished as a result and specialist species have declined or been lost altogether. Operational Objective 4 needs to bear in mind, however, that many of the scrubbed over areas will not develop their previously diverse flora and fauna. Neither is clearance of scrub simply an attempt to 'turn back the clock'. There must be specific objectives such as the creation of a mosaic of habitats that will improve conditions for invertebrates for which the Forest is particularly renowned. In some cases scrub is worth maintaining in its own right. There are a number of valuable sites in the Forest that are presently under scrub or secondary woodland that should be restored to open plains. The heathland areas are particularly prominent amongst these (eg Long Running and Deershelter Plain) because of their scarcity in the region and nationally, and because restoration on the poor and/or wet soils is likely to be successful in rejuvenating some of the heathland vegetation, as demonstrated on Long Running (Dagley 1996). However, there are some grassland areas under trees which are also good candidates for restoration. These usually still show enough valuable remnants (eg extant ant-hills) or they are close to valuable grasslands which need to be enlarged for sustainable management and which also contain appropriate seed sources (eg Yardley Hill). Many other areas, especially on more fertile soils, are now covered by such well-established secondary woodland that clearance would not be the best option and instead thinning or coppicing should be considered (eg for Nightingales around Connaught Water).
The importance of grazing	As one of the largest remaining examples of pasture woodland habitat in Europe, the Forest's historical, cultural and wildlife importance is inextricably linked to grazing. However, the number of grazing animals on the Forest has declined drastically during the 20th Century and in 1997, for the first time, no commoners' cattle were present on the Forest, breaking a tradition of many centuries. It is a high priority objective of the Management Plan, therefore, to restore grazing to the Forest, particularly to the larger grassland and heathland areas. Grazing is the optimal management for the Forest's grass and heathland habitats for the following reasons:

The importance of grazing (cont.)	• The grasslands and heaths owe their existence and diversity to grazing • Grazing ensures that the Forest remains open for public access and presents to the visitor attractive and wildlife rich plains and heaths • Mowing alone reduces grassland flower diversity and encourages coarse grasses • Some Forest plants like Spiny Rest-harrow, Petty Whin, and Pepper Saxifrage are adapted to grazing but can be damaged and decline under a mowing regime • Ant-hills, widespread throughout the Forest, cannot be mown • Mowing on grasslands and heathlands can reduce their insect diversity which in the Forest is often of equal or greater importance than the floristic diversity • Grazing by cattle can provide a varied sward height for different plants and insects and creates bare ground for seedling establishment • Grazing can be controlled much more finely than a mowing regime (there are more variables to change in a grazing regime to achieve the desired effect) • Grazing allows for gradations between completely open habitats and the areas with trees and would recreate the important wood-pasture system • Scrub-grass mosaics, important for birds and insects, are much more easily managed by grazing and can be much more dynamic than with mowing which tends to fix the islands of scrub in position • Mowing is creating an ever bigger problem of 'green waste' disposal and some grasslands require 2 cuts a year to prevent coarse grasses dominating
Grazing proposals	It is envisaged that future grazing proposals will be progressed cautiously as with the Long Running experiment, firstly to ensure their success from a public access and conservation perspective and secondly in order to engender an atmosphere of broad public acceptance and support. The public, indeed, should be reassured of the potential for grazing to aid access. To achieve grazing will necessitate livestock fencing in order to keep stock where they are required to be to aid Forest conservation and sustain access. Where proposed, stock fencing will be placed along Forest boundaries with neighbouring land or roads for as much of the length as possible. In addition, wherever feasible, any stock fences will be placed within the scrub and tree line to obscure them from view. The plan proposes the re-introduction of grazing to Fernhills in Year 1 and the extension of the Long Running grazing area in Year 2, subject to a full evaluation of the current small-scale experiment.
Mowing regime	Whilst mowing is only a second-best management tool for the Forest open areas, it is an essential tool in the absence of grazing alternatives. The Management Plan proposes the expansion and modification of the mowing regime.
Operational Management Objective 5: Whilst all major sites will be cleared to some extent, Operational Objective 5 needs to include the words "where possible and desirable" as follows: **"*Where possible and desirable*, to restore and thereafter maintain the Forest Plains, meadows, other grasslands and heaths in a favourable condition".**	

RATIONALE: Ideal Management Objective 6 **To enhance and thereafter maintain the network of Forest ponds, bogs, streams, ditches and their banks in a favourable condition.**	
The need for knowledge	In Epping Forest there are very large numbers of important ponds to protect. The Plan establishes a systematic survey and monitoring scheme for ponds and a method of according priorities to each site. The data gathered will receive careful interpretation before any management action is taken. Monitoring comes first in any Management Plan and ponds exemplify this point particularly well.
Size of network	Each individual pond is important but only the occasional one is exceptionally so (eg Wake Valley Pond). However, taken together the ponds are probably a resource of national importance in terms of wildlife. This is a case where the whole is greater than the sum of the parts. Most pond plants and animals are very mobile and can colonise different parts of the network that are in the right condition for them. There are many specialist species in the Forest (eg beetles) which are adapted to acid, low nutrient waters. The network is tending towards higher nutrient status and in the south, in particular, lower water quality. The Plan aims to reverse this trend in the long-term and ensure that specialist requirements are always met by a number of ponds at any one time.
Silt accumulation	It is the nature of all ponds to accumulate silt, and eventually to fill in. Ponds in any forest situation accrue silt very quickly due to leaf accumulation, and Epping Forest ponds mostly are largely shallow. Many of them have not been dredged for many years. Emergent weeds take hold far easier in shallow ponds and may cover all the surface. The only way to keep them as part of the network is to remove a proportion of the silt. A *small* amount of silt is desirable to maintain invertebrate life at the bottom of the pond and to allow submerged pondweeds to root. It also has an important role in absorbing excess nutrients.
Drought	It is inevitable that from time to time certain ponds will dry out due to climatic factors beyond our control. Some such ponds contain large fish which gasp at the surface and cause public concern, necessitating Forest labour to move them. Many pond species can cope with drought. In addition, a drought provides a useful opportunity to dredge a pond; it is more cost effective to do this when dry. Such an opportunity cannot always be planned.
Angling	Whilst angling is a very popular past-time, fish populations have a huge effect of the ecology of a pond. In some cases a fishing ban may be desirable, e.g. very shallow ponds which support many amphibians, or village type ponds with nesting ducks and heavy visitor pressure. A benefit in providing facilities for anglers is that the pond can be bailiffed and litter cleared. Also, many anglers are knowledgeable about natural history and provide useful data such as wildlife records, especially for nocturnal creatures such as bats.
Operational Management Objective 6: This remains the same as the Ideal Objective	

RATIONALE: Ideal Management Objective 7 To protect and maintain the condition of sites of historic and landscape importance, in particular Wanstead Park, Ambresbury Banks, Loughton Camp and the Purlieu Bank.	
Loughton Camp, Ambresbury Banks & Purlieu Bank	Section 7(3) of the Epping Forest Act 1878 requires the Conservators to "*especially...preserve and protect the ancient earthworks called Ambresbury Banks and all other ancient remains, and the Purlieu Bank, and such other Forest marks and boundaries, if any, as still exist in the Forest*". In 1996, agreement was reached with English Heritage regarding the management of Loughton Camp and Ambresbury Banks in line with their SSSI status. Particular care needs to be taken that these sites are not damaged by access, especially by cycling and horseriding.
Wanstead Park	Wanstead Park is a Grade II listed park and benefits from its own maintenance schedule produced with the assistance of Debois Landscape Survey Group. The emphasis during this Plan Period should be to integrate the above plan of works within Management Plan. The essentially urban location of Wanstead Park poses unique challenges to its management, particularly in relation to access. In addition, the costs involved in the restoration of the Park's lakes raise further questions.
Paul's Nursery and Knighton Woods	These two former garden sites are of historic importance and the surviving features, such as some of the cultivars, are worth conserving. The important alien species and cultivars, including Rhododendron, are not invasive and preserving these sites adds interest to the Forest without detracting from the natural aspect or scientific interest. Some restoration will be necessary, particularly the removal of overshading colonisers such as Sycamore and Birch.
Operational Management Objective 7: This remains the same as the Ideal Objective	

RATIONALE: Ideal Management Objective 8 **To enhance the wildlife value, increase the structural diversity and thereafter maintain in a favourable condition the Forest's secondary woodland and scrub, scrub-grass mosaics, glades, slades, rides, Green Lanes and road verges.**	
Scrub management	The amount of scrub in the Forest has greatly increased as a result of the decline in grazing. Generally-speaking the scrub that has developed is uniform and made up of relatively few, common species such as Blackthorn and Hawthorn; exceptions are areas of old scrub on the boulder-clays. It has more often than not replaced more valuable habitats and ones into which public access was easier. One approach to scrub management, therefore, is to clear it and to try to retrieve the grassland or heathland habitats. This clearance work is dealt with under the rationale for Objective 4. However, scrub provides an essential part of the Forest habitat mosaic. It is an important transition habitat between the open areas and the woodland. Shrub species are particularly important sources of food for birds and insects in the form of berries and nectar. Managing the resource through achieving a combination of scattered scrub and coppiced scrub is an appropriate response in many instances.
Gorse	The Epping Forest Act 1878 (Section 7(3)) requires the preservation of the vegetation of the Forest and one of the characterisitic species of the open aspect identified was Gorse. Like other species of open habitats it has declined in the last century. Areas of the Forest, such as Chingford Golf Course, were dominated by its yellow flowers until relatively recently. In the 19th Century the poet John Clare wrote of Buckhurst Hill: *"...I love to see the Beech Hill mounting high,* *The brook without a bridge and nearly dry,* *There's Bucket's Hill, aplace of furze and clouds....* *Which evening in a golden haze enshrouds..."* There is little of the golden haze. The Plan aims to address this.
Ride management	Rides in Epping Forest support some very important grassland and heathland habitats. However many have become much narrower and more shaded than in the past. While some shaded rides are attractive, ride management should, in general, be aimed at opening rides up more and allowing in sunlight for greater periods of the day.
Open spaces in woodland	Given the nature of Epping Forest as a pasture-woodland, open space was one of the woodlands' most significant characteristics. Therefore, even within areas of secondary woodland that are designated to develop a high forest structure, glades are important for maintaining the biodiversity of the area and adding interest for the Forest user. The Forest is especially important for its insect biodiversity and insects will be the main beneficiaries of the increased edge.
Operational Management Objective 8: This remains the same as the Ideal Objective.	

RATIONALES: Ideal Management Objectives 9 & 10 **9. To encourage the educational use of the Forest by the widest possible range of people.** **10. To promote scientific monitoring and research with the aim of establishing the Forest as a nationally-recognised centre for ecological/nature conservation research.**	
The Forest as a resource for education and research	The Forest is an exceptionally important resource for education and research. It is amongst a relatively short list of sites of semi-natural or natural vegetation that reach into the hearts of cities around the globe. It was perhaps the first "community forest" and certainly the Epping Forest Act 1878 was the first environmental conservation Act of its kind in Britain, sparking the conservation movement that we recognise today. It has been a centre of study for more than two centuries. Lichen recording as a science began here as early as 1784. The records from the Forest were amongst the most important in plotting the relationship between the rise of pollution and the decline of lichens. Nationally important records also exist for fungi. Important collections of specimens of all kinds of flora and fauna reside in various museums including The Natural History Museum. A fly new to science was discovered in 1985 and in 1997 a beetle specimen from the Forest was used by The Natural History Museum as the UK Type specimen. The Forest's international importance for saproxylic insects was recognised in a Council of Europe Report into the forests of Europe, and recently the recommendation as a candidate Special Area of Conservation site confirmed its international status.
Operational Management Objective 9	The site is already well-used for education. The Plan needs to ensure that educational use is sustainable in the long-term and that as wide a representation of the Forest users as possible are having the opportunities to learn about the features that make Epping Forest special. The Operational Objective needs to recognise the present heavy use of the Forest and the Ideal Objective is thus modified to reflect this (in italics): **To encourage the educational use of the Forest by the widest possible range of people, *without compromising the conservation interest.***
Operational Management Objective 10	At the moment, however, the many research projects conducted in the Forest each year tend to be short-term and often ad-hoc. More thoroughly thought-out projects, of value to the management of the Forest and to ecological science in general, need to be promoted. The Ideal Objective 9, therefore, needs to recognise this short-fall and be adjusted to include the words (in italics): **To promote scientific monitoring and research, *especially where this will aid the achievement of the other objectives*, with the aim of establishing the Forest as a nationally-recognised centre for ecological/nature conservation research.**

OPERATIONAL MANAGEMENT OBJECTIVES

1. To preserve and protect the physical and biological integrity of the Forest as a unique public open space.

2. To ensure the sustainable use of the Forest for the recreation and enjoyment of the public.

3. To protect and, where possible and desirable, to prolong the life of all the veteran trees and pollards of the Forest and to ensure new generations of trees are promoted to provide successors of equivalent wildlife value.

4. To maintain the ancient, semi-natural woodland in a favourable condition, with particular regard to the area of Beech on acid soils which is a habitat of international importance.

5. Where possible and desirable, to restore and thereafter maintain the Forest plains, meadows, other grasslands and heaths in a favourable condition.

6. To enhance and thereafter maintain the network of Forest ponds, bogs, streams, ditches and their banks in a favourable condition.

7. To protect and maintain the condition of sites of historic and landscape importance, in particular Wanstead Park, Ambresbury Banks, Loughton Camp and the Purlieu Bank.

8. To enhance the wildlife value, increase the structural diversity and thereafter maintain in a favourable condition the Forest's secondary woodland and scrub, scrub-grass mosaics, glades, slades, rides, Green Lanes and road verges.

9. To encourage the educational use of the Forest by the widest possible range of people without compromising the conservation interest

10. To promote scientific monitoring and research, especially where this will aid the achievement of the other objectives, with the aim of establishing the Forest as a nationally-recognised centre for ecological/nature conservation research.

The *PROJECT REGISTER* is a list of all projects planned to take place during the 5 year period of the management plan.

The projects are listed by **project code**, each individual project having a unique code for ease of identification.

The first letter of the project code denotes the broad category of the project, whilst the combination of the first and second letters defines more specific categories of projects as follows:

A Administration: Servicing and support activities

AA Acquisition/Declaration
AF Financial planning and recording
AI Inspection, routine inspections and audits
AP Planning, plan preparation and revision
AR Reports and general correspondence
AS Site and species safeguard, law enforcement and associated administrative work
AT Training and management

M Management: Projects relating to the practical implementation of management decisions

MA Manage habitat, artificial
ME Manage estate, fabric
MG Manage estate, grazing
MH Manage habitat
MI Wardening: Information and Education
ML Wardening: Liaison with owners, neighbours etc.
MM Manage estate, machinery
MP Wardening: Patrol
MS Manage species

R Records: Projects relating to the collection and collation of information

RA Record fauna
RB Record, biology general
RF Record vegetation (flora)
RH Record, human impact
RP Record, physical environment
RV Record, archive - general photos, maps etc.

A brief description and title for each individual project can be found in the project register.

For more complete details of projects, including the timing of each project and its priority, please consult the full Management Plan (see Contents Page for details).

ADMINISTRATION PROJECTS

Code	Project Description & TITLE	
AA	**Acquisition/Declaration**	
AA10/01	Acquire site, extension, by purchase/lease/agreement	NEW FOREST LAND
AA10/02	Acquire site, extension, by purchase/lease/agreement	NEW BUFFER LAND
AA50/01	Update information, Estate Terrier	DEFINING BOUNDARIES
AF	**Financial Planning and Recording**	
AF01/01	Grant Applications	LAKE RESTORATION FUNDING
AI	**Inspection, Routine Inspections and Audits**	
AI00/01	Implement inspection, monitoring site integrity	BOUNDARY INSPECTIONS
AI40/01	Implement inspection, other	CHECK/GPS STRUCTURES
AI40/02	Implement inspection/audit, other	COMMERCIAL WAYLEAVES REGISTER UPDATE
AI40/03	Implement inspection/audit, other	RESIDENTIAL WAYLEAVES REGISTER UPDATE
AP	**Planning, plan preparation and revision**	
AP20/01	Prepare/revise plan, site management	POND STRATEGIES
AP20/02	Prepare/revise plan, site management	LAKE RESTORATION PLANS
AP20/03	Prepare/revise plan, site management	MANAGEMENT PLAN YEARS 5-10
AP20/04	Prepare/revise plan, site management	WANSTEAD PARK
AP20/05	Prepare/revise plan, site management	GOLF COURSE MANAGEMENT PLANS
AP30/01	Prepare/revise plan, fire protection/control	FIRE PLAN
AP40/01	Prepare/revise plan, emergency procedures	EMERGENCY PLANS
AP60/01	Prepare/revise work programmes	ANNUAL WORK PROGRAMME PREVIEW
AP80/02	Convene meeting, site management committee	MANAGEMENT PLAN STEERING GROUP
AP80/04	Convene meeting, site managment committee	MANAGEMENT PLAN WORKING GROUP
AR	**Reports and general correspondence**	
AR00/01	Prepare report, project recording	ANNUAL PROJECT RECORDING REVIEW
AR01/01	Prepare report, project review, new projects	ADDITIONAL PLAN PROJECTS
AR01/02	Prepare report, project review, new projects	TRUELOVES MANAGEMENT

ADMINISTRATION PROJECTS cont.

Code	Project Description & TITLE	
AR (cont.)	**Reports and general correspondence**	
AR01/03	Prepare report, project review, new projects	NEW POND SURVEY/STRATEGY
AR20/01	Prepare report, annual progress	SUPERINTENDENT'S ANNUAL REPORT
AR20/02	Prepare report, annual progress	ANNUAL WORK PROGRAMME REVIEW
AR60/01	Prepare report, other	GREEN WASTE REPORT
AR60/02	Prepare report, other	INVISIBLE FENCING
AR60/03	Prepare report, other	RIDESIDE FLORA REPORT
AR60/04	Prepare report, other	COMMONERS GRAZING
AR60/05	Prepare report, other	SCARCE PLANT RE-ESTABLISHMENTS
AR60/06	Prepare report, other	PURLIEU HEDGE MANAGEMENT
AR60/07	Prepare report, other	BOG WATER LEVEL CONTROL
AR60/08	Prepare report, other	GREEN AUDIT REPORT
AR60/09	Prepare report, other	CHARCOAL PRODUCTION PROJECT
AS	**Site and species safeguard, law enforcement and associated administrative work**	
AS00/01	Protect site, by promulgating/enforcing laws	BYELAWS
AS00/02	Protect site, by promulgating/enforcing laws	CYCLING RESTRICTIONS
AS00/03	Protect site, by promulgating enforcing laws	FUNGI COLLECTING
AS10/01	Protect site, by implementing visiting permit system	LICENCE SYSTEM
AS10/02	Protect site, by implementing visiting permit system	EDUCATIONAL GROUP LICENCES
AS10/03	Protect site, by implementing visiting permit system	CODE OF PRACTICE
AS10/04	Protect site, by implementing visiting permit system	ANGLING LICENCES
AS10/05	Protect site, by implementing visiting permit system	INTRODUCTION OF HORSE-RIDING REGISTRATION SCHEME
AS20/01	Protect site/species, by implementing collecting/research permit system	RESEARCH LICENCES & REGISTER
AS20/02	Protect site/species, by implementing collecting/research permit system	FUNGI FORAY LICENCES
AS40/01	Protect site, by prosecution	PROSECUTIONS & WARNING LETTERS

ADMINISTRATION PROJECTS cont.

Code	Project Description & TITLE	
AT	**Training and management**	
AT00/01	Train staff, use of site planning system	CMS TRAINING
AT00/02	Train staff, use of site planning system	EPPING FOREST MANAGEMENT PLAN
AT10/01	Train staff, management techniques	CONSERVATION ON CHINGFORD GOLF COURSE
AT30/01	Train staff, other	TREE SAFETY
AT30/02	Train staff, other	DEAD WOOD GUIDANCE NOTES
AT30/03	Train staff, other	GREAT CRESTED NEWT CONSERVATION
AT30/04	Train staff, other	STAFF SEMINARS
AT30/05	Train staff, other	PLAN INFORMATION PACKS
AT30/06	Train staff, other	SSSI/SAC LEGISLATION

MANAGEMENT PROJECTS

Code	Project Description & TITLE	
MA	**Manage Habitat, Artificial**	
MA00/01	Manage habitat, artificial, by planting	CULTIVAR REPLACEMENT
MA04/01	Manage habitat, artificial, by clearing	CULTIVAR CONSERVATION
MA05/01	Manage habitat, artificial, path maintenance	PATHWAY WORK
MA09/01	Manage habitat, artificial, by other activities	BOG GARDEN PLAN
MA09/02	Manage habitat, artificial, by other activities	SCRAPES FOR RUDERALS
ME	**Manage Estate, Fabric**	
ME01/01	Manage estate, boundary structures	MAINTAIN FENCING
ME01/02	Manage estate, boundary structures	BARRIER GATES
ME01/03	Manage estate, boundary structures	BOUNDARY MARKER/STREET/ AVENUE TREES
ME01/04	Manage estate, boundary structures	WOODBANKS / BOUNDARY BANKS & DITCHES
ME02/01	Manage estate, other structures	LOUGHTON CAMP & AMBRESBURY BANKS
ME02/02	Manage estate, other structures	FOREST SIGNS
ME02/03	Manage estate, other structures	SEATS
ME02/04	Manage estate, other structures	GATES/STILES/FENCES
ME02/05	Manage estate, other structures	BRIDGES
ME02/06	Manage estate, other structures	LITTER BINS / COLLECTION
ME04/01	Manage estate, remove rubbish	LITTER PICKING
ME10/01	Manage estate, buildings, general	TOILETS
ME20/01	Comply with legal obligations	ALL LEGAL OBLIGATIONS
ME40/01	Provide/maintain paths/rides/roads	PATHWAY OBSTRUCTIONS
ME40/02	Provide/maintain paths/rides/roads	PATHWAYS MAINTENANCE
ME40/03	Provide/maintain paths/rides/roads	EASY ACCESS PATH, KNIGHTON WOOD
ME40/04	Provide/maintain paths/rides/roads	EASY ACCESS PATH, WANSTEAD PARK
ME40/05	Provide/maintain paths/rides/roads	CAR PARKS
ME40/06	Provide/maintain paths/rides/roads	BARN HOPPITT SUMMER CAR PARK
ME40/07	Provide/maintain paths/rides/roads	CAR PARK NIGHT-TIME USE

MANAGEMENT PROJECTS cont.

Code	Project Description & TITLE	
ME (cont.)	**Manage Estate, Fabric**	
ME40/08	Provide/maintain paths/rides/roads	ROADSIDE VERGE PARKING
ME40/09	Provide/maintain paths/rides/roads	HORSE-RIDE MAINTENANCE
ME40/10	Provide/maintain paths/rides/roads	EASY ACCESS PATH, HIGH BEACH
MG	**Manage Estate, Grazing**	
MG00/01	Husband grazing stock, cattle	HERDING GRAZING ANIMALS
MG00/02	Husband grazing stock, cattle	GRAZING BY TETHERED ANIMALS
MH	**Manage Habitat**	
MH00/01	Manage habitat, woodland/scrub, by coppicing	BLUEHOUSE/HATCH GROVES
MH00/02	Manage habitat, woodland/scrub, by coppicing	WIDEN RIDESIDES
MH00/03	Manage habitat, woodland/scrub, by coppicing	15-YR SCRUB COPPICE ROTATION
MH00/04	Manage habitat, woodland/scrub, by coppicing	10-YR GORSE SCRUB ROTATION
MH01/01 PLANTING	Manage habitat, woodland/scrub, by planting	SECONDARY WOODLAND
MH01/02	Manage habitat, woodland/scrub, by planting/sowing	RE-ESTABLISH BRAMBLES
MH02/01	Manage habitat, woodland/scrub, thinning/group felling	HIGH FOREST THINNING
MH02/02	Manage habitat, woodland/scrub, by thinning/group felling	SECONDARY WOODLAND HIGH FOREST
MH02/03	Manage habitat, woodland/scrub, by thinning	A104 ROADSIDE CANOPY
MH04/01	Manage habitat, woodland/scrub, glade maintenance	DEER GLADE MAINTENANCE
MH04/02	Manage habitat, woodland/scrub, glade maintenance	WOODLAND GLADES
MH05/01	Manage habitat, woodland/scrub, by pollarding	MAIDEN POLLARDING
MH05/02	Manage habitat, woodland/scrub, by pollarding	GROUP RE-POLLARDING
MH05/03	Manage habitat, woodland/scrub, by pollarding	STREAMSIDE/LINEAR RE-POLLARDING
MH07/01	Manage habitat, woodland/scrub, by scrub control	ROADSIDE VERGE WIDENING
MH07/02	Manage habitat, woodland/scrub, by scrub control	MOSS CARPET PROTECTION
MH07/03	Manage habitat, woodland/scrub, by scrub control	SCATTERED SCRUB

MH07/04 Manage habitat, woodland/scrub, by scrub control HAIRSTREAK SCRUB

MANAGEMENT PROJECTS cont.

Code	Project Description & TITLE
MH (cont.)	**Manage Habitat**
MH08/01	Manage habitat, woodland/scrub, by managing dead wood DEAD WOOD CONSERVATION
MH09/01	Manage habitat, woodland/scrub, by other activities MOWING WOOD-PASTURE
MH09/02	Manage habitat, woodland/scrub, by other activities GRAZING WOOD-PASTURE
MH09/03	Manage habitat, woodland, by other activities MINIMUM INTERVENTION
MH10/01	Manage habitat, grassland, by controlled grazing WANSTEAD/LEYTON FLATS
MH10/02	Manage habitat, grassland, by controlled grazing FERNHILLS
MH10/03	Manage habitat, grassland, by controlled grazing APPRAISAL OF OTHER GRASSLAND SITES
MH12/01	Manage habitat, grassland, by mowing HAY-CUT (USUALLY ANNUAL)
MH12/02	Manage habitat, grassland, by mowing EARLY and/or LATE CUT(S)
MH12/03	Manage habitat, grassland, by mowing ON-SITE ROTATIONS
MH12/04	Manage habitat, grassland, by mowing NO-CUT ROTATIONS
MH12/05	Manage habitat, grassland, by mowing BY MINI-SYSTEM
MH12/06	Manage habitat, grassland, by mowing AMENITY CUT
MH12/07	Manage habitat, grassland, by mowing GENERAL RIDESIDE MOWING
MH12/08	Manage habitat, grassland, by mowing PRIORITY RIDESIDES BY MOWING MINI-SYSTEM
MH14/01	Manage habitat, grassland, by scrub/tree control RESTORE GRASSLANDS
MH14/02	Manage habitat, grassland, by scrub/tree control MAINTAIN GRASSLANDS
MH16/01	Manage habitat, grassland, by fencing FERNHILLS FENCING
MH19/01	Manage habitat, grassland, by other activities GRASS DUMP SITES
MH19/02	Manage habitat, grassland, by other activities GREEN WASTE SYSTEM
MH19/03	Manage habitat, grassland, by other activities CREATE MARSHY AREAS
MH25/01	Manage habitat, bracken herb, by spraying SPRAYING ROTATION
MH29/01	Manage habitat, bracken herb, by other activities BRACKEN COMPOST DISPOSAL
MH29/02	Manage habitat, bracken herb, by other activities BRACKEN ROLLING
MH30/01	Manage habitat, lowland heath, by controlled grazing LONG RUNNING EXTENSION

MANAGEMENT PROJECTS cont.

Code	Project Description & TITLE	
MH (cont.)	**Manage Habitat**	
MH30/02	Manage habitat, lowland heath, by controlled grazing	APPRAISAL OF OTHER HEATHLAND SITES
MH31/01	Manage habitat, lowland heath, by scrub/tree control	RESTORE HEATHS
MH31/02	Manage habitat, lowland heath, by scrub/tree control	MAINTAIN HEATHS
MH34/01	Manage habitat, lowland heath, by fencing	LONG RUNNING FENCING
MH39/01	Manage habitat, lowland heath, by other activities	HEATHLAND SCRAPES
MH42/01	Manage habitat, bog/mire/flush, by scrub/tree control	BOG CLEARANCE
MH57/01	Manage habitat, swamp/fen/inundation, by ditch/dyke maintenance	DITCH VEGETATION CUTTING
MH61/01	Manage habitat, open water, by excavation	NEW PONDS
MH64/01	Manage habitat, open water, by dredging/reprofiling	MAJOR POND DE-SILTING
MH64/02	Manage habitat, open water, by dredging/reprofiling	MINOR POND DE-SILTING
MH65/01	Manage habitat, open water, by clearing surrounding vegetation	PLANT CLEARANCE/CUTTING
MH65/02	Manage habitat, open water, by clearing surrounding vegetation	OPEN STREAMSIDES
MH69/01	Manage habitat, open water, by other activities	MODEL YACHT POND RESTORATION

MI	**Wardening: Information and Education**	
MI00/01	Inform public, off-site	TALKS TO CONFERENCES/MEETINGS
MI10/01	Inform visitors, general	REQUESTS FOR INFORMATION/VISITOR RECEPTION
MI10/02	Inform visitors, general	PUBLIC TRANSPORT
MI20/02	Inform visitors, educational	TALKS
MI20/03	Inform visitors, educational	GENERAL GUIDED WALKS
MI20/04	Inform visitors, educational	HABITAT MANAGEMENT WORK SIGNS
MI20/05	Inform visitors, educational	EDUCATION GROUP GUIDED WALKS/TALKS
MI20/07	Inform visitors, educational	POND CONSERVATION NOTES
MI20/08	Inform visitors, educational	POND ALIENS POSTER/LEAFLET

MANAGEMENT PROJECTS cont.

Code	Project Description & TITLE	
MI (cont.)	**Wardening: Information and Education**	
MI30/01	Inform visitors, specialist	SPECIALIST GROUPS
MI50/01	Provide interpretative material	CHANGE INFORMATION CENTRE DISPLAYS
MI50/02	Provide interpretative material	CHANGE QEHL DISPLAYS
MI50/03	Provide interpretative material	COACH HOUSE DISPLAYS
MI50/04	Provide interpretative material	TEMPLE INFORMATION POINT
MI50/05	Provide interpretative material	FOREST NEWSLETTER
MI50/06	Provide interpretative material	ANNUAL BIRD REPORT
MI50/07	Provide interpretative material	DEAD WOOD
MI50/08	Provide interpretative material	DEER BOOKLET
MI50/09	Provide interpretative material	INFORMATION LEAFLETS
MI50/10	Provide interpretative material	LOCAL AGENDA 21 IN EPPING FOREST
ML	**Wardening: Liaison with owners, neighbours etc.**	
ML10/01	Liaise, commoners	MEETINGS WITH COMMONERS
ML40/01	Liaise, local/national authorities	ENGLISH NATURE
ML40/02	Liaise, local/national authorities	ENVIRONMENT AGENCY
ML40/03	Liaise, local/national authorities	FORESTRY AUTHORITY
ML40/04	Liaise, local/national authorities	ENGLISH HERITAGE
ML40/05	Liaise, local/national authorities	LOCAL PLANNING AUTHORITIES
ML40/06	Liaise, local/national authorities	LOCAL HIGHWAYS AUTHORITIES
ML40/07	Liaise, local/national authorities	ESSEX BIODIVERSITY ACTION PLAN
ML40/08	Liaise, local/national authorities	EPPING FOREST COUNTRYCARE
ML40/09	Liaise, local/national authorities	LONDON BIODIVERSITY ACTION PLAN
ML40/10	Liaise, local/national authorities	WALTHAM FOREST CONSERVATION FOCUS GROUP
ML40/11	Liaise, local/national authorities	LIAISON WITH VERDERERS
ML50/01	Liaise, local community/groups	FRIENDS OF EPPING FOREST

MANAGEMENT PROJECTS cont.

Code	Project Description & TITLE	
ML (cont.)	**Wardening: Liaison with owners, neighbours etc.**	
ML50/02	Liaise, local community/groups	EPPING FOREST CONSERVATION VOLUNTEERS
ML50/03	Liaise, local community/groups	WREN CONSERVATION GROUP
ML50/04	Liaise, local community/groups	OTHER GROUPS
ML50/05	Liaise, local community/groups	PEOPLE WITH DISABILITIES
ML50/06	Liaise, local community/groups	EPPING FOREST HORSERIDERS ASSOCIATION
ML50/07	Liaise, local community/groups	EPPING FOREST CENTENARY TRUST WORK PROGRAMME
ML50/08	Liaise, local community/groups	EPPING FOREST CENTENARY TRUST SCOUT PROJECTS
ML50/09	Liaise, local community/groups	INFORMATION ABOUT COPPICING
ML80/01	Liaise, others	EVENTS
ML80/02	Liaise, others	ORIENTEERING/RUNNING CLUBS
ML80/03	Liaise, others	BIRD FORUM
ML80/04	Liaise, others	REPTILE & AMPHIBIAN FORUM
ML80/05	Liaise, others	INVERTEBRATE FORUM
ML80/06	Liaise, others	POND FIELD VISIT GROUP
ML80/07	Liaise, others	ANGLING CLUB FORUM
ML80/08	Liaise, others	CHINGFORD GOLF COURSE CLUBS
ML80/09	Liaise, others	THEYDON BOIS GOLF COURSE CLUBS
ML80/10	Liaise, others	WOODFORD GOLF COURSE CLUBS
ML80/11	Liaise, others	FOOTBALL PITCH USERS
ML80/12	Liaise, others	CRICKET PITCH USERS
ML80/13	Liaise, others	SCIENTIFIC/CONSERVATION MEETINGS
ML80/14	Liaise, others	RESEARCH BODIES
ML80/15	Liaise, others	EDUCATION FORUM
ML80/16	Liaise, others	DEVELOPING THE EDUCATION SERVICE

MANAGEMENT PROJECTS cont.

Code	Project Description & TITLE	
MM	**Manage Estate Machinery**	
MM00/01	Acquire/service vehicles/boats	TRACTORS & OTHER VEHICLES
MM00/02	Acquire/service vehicles/boats	BOAT/BOAT PARTS
MM10/01	Acquire/service machinery	HABITAT MANAGEMENT MACHINERY
MM20/01	Acquire/maintain tools/equipment	TOOLS & SAFETY EQUIPMENT
MM20/02	Acquire/maintain tools/equipment	SCIENTIFIC EQUIPMENT
MM20/03	Acquire/maintain tools/equipment	COMPUTER EQUIPMENT
MM20/04	Acquire/maintain tools/equipment	ECOLOGIST'S LABORATORY
MP	**Wardening: Patrol**	
MP00/01	Protect site/ species by patrol	BOUNDARY PATROLS
MP00/02	Protect site/species by patrol	BLUEBELL PATROL
MS	**Manage Species**	
MS00/01	Manage species, tree/shrub	BOUNDARY TREE SAFETY
MS00/02	Manage species, tree/shrub	CLEARANCE AROUND OVERSTOOD POLLARDS
MS00/03	Manage species, tree/shrub	RE-CUTTING OAK POLLARDS
MS00/04	Manage species, tree/shrub	RE-CUTTING VETERAN BEECHES
MS00/05	Manage species, tree/shrub	CONTROL SYCAMORE/TURKEY OAK
MS00/06	Manage species, tree/shrub	RHODODENDRON
MS00/07	Manage species, tree/shrub	WILD SERVICE/CRAB APPLE PROTECTION
MS00/08	Manage species, tree/shrub	NORWAY MAPLE/OTHER ALIEN TREES
MS00/09	Manage species, tree/shrub	GRUB OUT HOLLY
MS10/01	Manage species, other vascular plant	LOUSEWORT
MS10/02	Manage species, other vascular plant, Ragwort	RAGWORT CONTROL BY HAND-PULLING
MS10/03	Manage species, other vascular plant	*HYDROCOTYLE RANUNCULOIDES*
MS10/04	Manage species, other vascular plant	*IMPATIENS GLANDULIFERA*
MS10/05	Manage species, other vascular plant	CONTINGENCY PLANS

MANAGEMENT PROJECTS cont.

Code	Project Description & TITLE	
MS (cont.)	**Manage Species**	
MS10/06	Manage species, other vascular plant	HAWKWEED CONSERVATION
MS10/07	Manage species, other vascular plant	ALIEN/INVASIVE PLANT REMOVAL
MS10/08	Manage species, other vascular plant	JAPANESE KNOTWEED
MS20/01	Manage species, lower plant	POLYPODY RE-ESTABLISHMENT
MS30/01	Manage species, mammal, deer	ROADSIDE WARNING SIGNS
MS30/02	Manage species, mammal, deer	DEER REFLECTORS PROJECT
MS30/03	Manage species, mammal	GREY SQUIRREL
MS40/01	Manage species, bird	CANADA GOOSE EGGS
MS40/02	Manage species, bird	GOOSE CULL
MS40/03	Manage species, bird	SWAN RESCUE
MS40/04	Manage species, bird	INJURED WILDFOWL
MS40/05	Manage species, bird	DOMESTIC/HYBRID WILDFOWL
MS40/06	Manage species, bird	MAGPIE CONTROL
MS50/01	Manage species, herptile	POND BUFFER ZONES
MS50/02	Manage species, herptile	PROTECT BY FISH REMOVAL
MS60/01	Manage species , fish	FISH RE-STOCKING/REMOVAL
MS70/01	Manage species, Lepidoptera, Gypsy Moth	EGG MASS & CATERPILLAR SEARCHES
MS70/02	Manage species, Lepidoptera, Gypsy Moth	FOGGING & TREATMENT CONTINGENCY
MS70/03	Manage species, Lepidoptera, Gypsy Moth	PHEROMONE TRAPS
MS80/01	Manage species, other insect, Downy Emerald	*CORDULIA* RE-ESTABLISHMENT PROJECT
MS70/04	Manage species, Lepidoptera, Brown Hairstreak	HAIRSTREAK RE-ESTABLISHMENT PROJECT
MS90/01	Manage species, other invertebrate	*ERGASILUS BRIANI*

PROJECTS RELATING TO RECORDING

Code	Project Description & TITLE	
RA	**Record Fauna**	
RA02/01	Collect data, mammals, by survey	INDEPENDENT DEER SURVEY
RA03/01	Collect data, mammals, by monitoring	BADGER ACTIVITY
RA03/02	Collect data, mammals, by monitoring	DEER CROSSINGS
RA03/03	Collect data, mammals, by monitoring	EVIDENCE OF DEER
RA04/01	Collect data, mammals, by counts/census	ANNUAL DEER COUNT
RA04/02	Collect data, mammals, by counts/census	REGISTRATION OF RTAS
RA13/02	Collect data, birds, by monitoring	CANADA GEESE
RA13/03	Collect data, birds, by monitoring	NIGHTINGALES
RA13/04	Collect data, birds, by monitoring	MAGPIE NUMBERS
RA14/01	Collect data, birds	LARKS AND PIPITS
RA14/02	Collect data, birds, by counts/census	RANDOM POINT COUNTS
RA14/03	Collect data, birds, by counts/census	BREEDING WILDFOWL
RA14/04	Collect data, birds, by counts/census	WINTER WILDFOWL COUNTS
RA15/01	Collect data, birds, by research project	TERRITORY MAPPING IN RE-POLLARDED AREAS
RA15/02	Collect data, birds, by research project	MANDARINS
RA15/03	Collect data, birds, by research project	MAGPIE CONTROL & SONGBIRDS
RA22/01	Collect data, herptiles, by survey	REPTILE SURVEY
RA22/02	Collect data, herptiles, by survey	AMPHIBIAN POPULATIONS
RA23/01	Collect data, herptiles, by monitoring	ADDER HIBERNACULA
RA23/02	Collect data, herptiles, by monitoring	REPTILE MONITORING PROJECT
RA24/01	Collect data, herptiles, by count/census	GREAT CRESTED NEWT
RA33/01	Collect data, fish, by monitoring	FISH CHECK ROTA
RA42/01	Collect data, Lepidoptera, by survey	MOTH TRAPPING
RA43/01	Collect data, Lepidoptera, by monitoring	GRASSLAND BUTTERFLIES
RA43/02	Collect data, Lepidoptera, by monitoring	RIDESIDE/SCRUB BUTTERFLIES
RA45/02	Collect data, Lepidoptera, by research project	BROWN HAIRSTREAK MONITORING

PROJECTS RELATING TO RECORDING cont.

Code	Project Description & TITLE	
RA (cont.)	**Record Fauna**	
RA53/01	Collect data, odonata, by monitoring	DOWNY EMERALD DRAGONFLY
RA53/02	Collect data, Odonata, by monitoring	ODONATA BREEDING ASSEMBLAGE
RA72/01	Collect data, general insects, by survey	FOREST INSECT SURVEY
RA72/02	Collect data, general insects, by survey	ANT-HILL MAPPING
RA72/03	Collect data, general insects, by survey	POND BEETLES
RA73/01	Collect data, Stag Beetle, by monitoring	MONITORING STRATEGY
RA82/01	Collect data, general invertebrates, by survey	POND INVERTEBRATE SURVEY
RA82/02	Collect data, general invertebrates, by survey	PIT-FALL TRAP TRANSECTS
RA83/01	Collect data, general invertebrates, by monitoring	PERMANENT PIT-FALL TRAPS
RA84/01	Collect data, general insects, by counts	*DESCHAMPSIA/ MOLINIA* TUSSOCK SAMPLING
RA85/01	Collect data, general invertebrates, by research project	POLLARDING IMPACTS ON INVERTEBRATES
RB	**Record, Biology General**	
RB00/01	Collect data, biological	GENERAL WILDLIFE REPORTS
RB00/02	Collect data, biological	RECORDER DATABASE
RB00/03	Collect data, biological	ACCESS/GIS/OTHER DATABASES
RB02/01	Collect data, biological, by survey	CUCKOO PITS RE-SURVEY
RB03/01	Collect data, biological, by monitoring	POND CONDITION
RB15/01	Collect data, palaeontological	POLLEN PROFILE PROJECT
RF	**Record Vegetation (Flora)**	
RF00/01	Collect data, vegetation	RESPONSE TO COPPICING
RF02/01	Collect data, vegetation, survey	MAPPING VEGETATION BOUNDARIES
RF02/02	Collect data, vegetation, survey	ANNUAL VISUAL INSPECTION
RF02/03	Collect data, vegetation, survey	MAPPING
RF02/04	Collect data, vegetation, survey	NVC GRASS/HEATH SURVEY
RF02/05	Collect data, vegetation, survey	POND VEGETATION MAPS

PROJECTS RELATING TO RECORDING cont.

Code	Project Description & TITLE	
RF (cont.)	**Record Vegetation (Flora)**	
RF02/06	Collect data, vegetation, survey	RIDESIDE FLORA
RF02/07	Collect data, vegetation, survey	NVC WOODLAND SURVEY
RF02/08	Collect data, vegetation, survey	BOG VEGETATION MAPS
RF03/01	Collect data, trees/shrubs, by monitoring	FOREST-WIDE RANDOM PLOT MONITORING
RF03/02	Collect data, vegetation, monitoring	LONG-TERM PERMANENT PLOTS
RF03/03	Collect data, vegetation, by monitoring	RANDOM MINI-QUADRATS
RF03/04	Collect data, vegetation, by monitoring	LONG RUNNING GRAZING TRIAL
RF03/05	Collect data, vegetation, by monitoring	FAIRMEAD ROAD DITCH
RF05/01	Collect data, vegetation, by research project	MOWING REGIME EXPT
RF10/01	Collect data, trees/shrubs	BOUNDARY & ROADSIDE TREES
RF12/01	Collect data, trees/shrubs, by survey	VETERAN/POLLARD TREE REGISTER
RF12/02	Collect data, trees/shrubs, by survey	SYCAMORE/TURKEY OAK
RF12/03	Collect data, trees/shrubs, by survey	TREE DISTRIBUTION IN *ZYGODON* AREA
RF12/04	Collect data, trees/shrubs, by survey	WILD SERVICE
RF12/05	Collect data, trees/shrubs, by survey	CRAB APPLE
RF12/06	Collect data, trees/shrubs, by survey	BRAMBLE SURVEY
RF12/07	Collect data, trees/shrubs, by survey	SURVEY HAIRSTREAK RECEPTOR SITE
RF13/01	Collect data, trees/shrubs, monitor	NEW POLLARD REGROWTH
RF13/02	Collect data, trees/shrubs, monitor	RECOVERY OF OVERSTOOD POLLARDS
RF13/03	Collect data, trees/shrubs, by monitoring	SCARCE BRAMBLES
RF13/04	Collect data, trees/shrubs, by monitoring	TREE CANOPY - AERIAL PHOTOS
RF13/05	Collect data, trees/shrubs, by monitoring	RHODODENDRON
RF14/01	Collect data, trees/shrubs, measure	DEAD WOOD VOLUMES
RF14/02	Collect data, trees/shrubs, measure	TREE-RING ANALYSIS
RF15/01	Collect data, trees/shrubs, research project	SIZE OF MAIDEN TREES
RF15/02	Collect data, trees/shrubs, research project	MAIDENS - TIMING OF CUTTING
RF15/03	Collect data, trees/shrubs, research project	RE-CUTTING OAK POLLARDS

PROJECTS RELATING TO RECORDING cont.

Code	Project Description & TITLE	
RF (cont.)	**Record Vegetation (Flora)**	
RF15/04	Collect data, trees/shrubs, research project	RE-CUTTING VETERAN BEECHES
RF23/01	Collect data, other vascular plants, by monitoring	SUNDEW SPECIES
RF23/02	Collect data, other vascular plants, by monitoring	COTTON GRASS
RF23/03	Collect data, other vascular plants, by monitoring	PETTY WHIN
RF23/04	Collect data, other vascular plants, by monitoring	DWARF GORSE
RF23/05	Collect data, other vascular plants, by monitoring	SPINY REST-HARROW
RF23/06	Collect data, other vascular plant, by monitoring	HAWKWEEDS
RF23/07	Collect data, other vascular plants, by monitoring	HEATHER GROWTH INCREMENTS
RF24/01	Collect data, other vascular plants, by census	ORCHID POPULATIONS
RF24/02	Collect data, other vascular plants, by count/census	HELLEBORINES
RF32/01	Collect data, bryophytes, by survey	*ZYGODON* POPULATION ESTIMATE
RF32/02	Collect data, bryophytes, by survey	MOSS CARPET MAPS
RF32/03	Collect data, bryophytes, by survey	HEATHLAND BRYOPHYTES
RF33/01	Collect data, bryophytes, by monitoring	*ZYGODON FORSTERI*
RF33/02	Collect data, bryophytes, by monitoring	MOSS CARPET COMMUNITIES
RF35/01	Collect data, bryophytes, by research project	MOSS CARPET DYNAMICS
RF42/01	Collect data, algae, by survey	POND ALGAE
RF52/01	Collect data, lichens, by survey	LICHEN SURVEYS
RF53/01	Collect data, lichens, by monitoring	LICHEN MONITORING
RF63/01	Collect data, fungi, by monitoring MYCCORHIZAL	FUNGI MONITORING PROJECT
RF65/01	Collect data, fungi, by research project	FUNGI MONITORING PROJECT
RH	**Record, Human Impact**	
RH00/01	Collect data, human impact, general	BEAT REPORTS
RH00/02	Collect data, human impact, general	GLOBAL CLIMATE CHANGE
RH02/01	Collect data, human impact, monitor	HORSE-RIDE CONDITION

RH02/02	Collect data, human impact, monitor	UNSURFACED HORSE-RIDES

PROJECTS RELATING TO RECORDING cont.

Code	Project Description & TITLE	
RH (cont.)	**Record, Human Impact**	
RH07/01	Collect data, human impact, pollution	WATER POLLUTION
RH07/02	Collect data, human impact, pollution	AIR POLLUTION MONITORING
RH10/01	Collect data, land use history	PAST MANAGEMENT
RH31/01	Collect data, public use, education	MONITOR SITES
RH33/01	Collect data, public use, recreation	PUBLIC RECREATION
RH33/02	Collect data, public use, recreation	MOUNTAIN BIKES
RH33/03	Collect data, public use, recreation	ORIENTEERING/RUNNING
RH33/04	Collect data, public use, recreation	MONITOR LEVELS OF HORSE-RIDING
RH80/01	Collect data, management, by group	EPPING FOREST CENTENARY TRUST SITES
RP	**Record, Physical Environment**	
RP03/01	Collect data, climatological, by monitoring	METEOROLOGICAL DATA
RP12/01	Collect data, hydrological, by survey	GROUND WATER
RP13/01	Collect data, hydrological, by monitoring	GENERAL WATER QUALITY
RP13/02	Collect data, hydrological, by monitoring	BOG WATER LEVELS
RP42/01	Collect data, pedological, by survey	HEATH SOIL SURVEY
RP50/01	Collect data, landscaspe, by survey	AERIAL PHOTOGRAPH FEATURES
RP50/02	Collect/data, landscape, by survey	GPS SURVEYS
RP50/03	Collect data, landscape	PURLIEU HEDGE GPS MAP
RV	**Record, archive - general photos, maps etc.**	
RV00/01	List/collect references, published and unpublished	SCIENTIFIC & CONSERVATION LIBRARY
RV00/02	List/collect references, published and unpublished	FIELD CENTRE LIBRARY
RV10/01	List/collect photographs, general	FIXED POINT PHOTOGRAPHS
RV10/02	List/collect photographs, general	TREE FIXED POINT PHOTOGRAPHS
RV10/03	List/collect photographs, general	SLIDE LIBRARIES
RV20/01	List/collect/commission photographs, aerial	AERIAL PHOTOGRAPHY

PROJECTS RELATING TO RECORDING cont.

Code	Project Description & TITLE	
RV (cont.)	**Record, archive - general photos, maps etc.**	
RV30/01	List/collect maps	MAP REGISTER
RV30/02	List/collect maps	SCAN MAPS
RV40/01	Create base map	GIS FOREST MAP
RV50/01	List/collect records, archival	FOREST REFERENCE LIBRARY

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Short Walks in London's Epping Forest	Fred Matthews	1981
Epping Forest Companion	R Mitchell	1991
Epping Forest	Alfred Qvist	1972
Epping Forest: Then and Now	W G Ramsey, and R G Fowkes	1986