



***A Guide to  
Writing Deer  
Management  
Plans***

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## *Deer Management Plan Template Guidance*

Six species of deer live wild in Britain today. Most species are increasing in numbers and range, notably in lowland regions. Deer live mainly in woodland but use farmland and gardens and red deer have adapted to live on moorland. Deer are an important part of our wildlife and are attractive animals which people enjoy seeing in our countryside. However they must be managed to keep them in balance with their habitat and prevent serious damage to woodlands, nature reserves, parks or gardens where deer may now live or colonise in the future.

Too many deer can lead to:

- damage to trees, woodland flora and wildlife habitats
- damage to farm crops and gardens
- more traffic accidents
- poor health of the deer themselves if their numbers are greater than the habitat can support.

Woodland clearance and over-hunting reduced deer in historic times but during the 20<sup>th</sup> century our native deer species have re-colonised both ancient and new woodlands over most of their former range. Man exterminated wolves and other animals which once helped to control deer numbers naturally and has also introduced 4 species (fallow, sika, muntjac and Chinese water deer) which with the possible exception of CWD are spreading rapidly. For these reasons deer and their habitats need to be managed.

### *How to use this guide*

This Guidance has been developed to assist owners or managers of woodlands to complete the Deer Management Plan Template in a way which meets the requirements of both the Forestry Commission and the UK Woodland Assurance Scheme.

Each section of the Template is numbered, and the guidance here follows the same numbering to allow quick and easy cross-referencing.

It is important to note that this guidance is not a manual or handbook on best deer management practice. The guide has been written for use by woodland owners or managers who have a basic understanding of the key elements of woodland and deer management. The toolkit will therefore not be appropriate for those with no woodland management experience without provision of additional support and guidance.

Similarly, this approach may not be the most appropriate mechanism for highly developed and well resourced forest organisations, although the guide and management plan template may still provide a useful source of information.

The guide has two sections:

- **Section A** which provides an introduction which outlines the objectives of the guide and potential readership
- **Section B** which provides guidance notes for woodland owners and managers on how to use the management plan template

## *Section A: Introduction*

### *The need for planning*

The aim of good deer management should aim to maintain healthy deer populations in balance with their environment. Wherever possible the prevention of problems is better than trying to remedy a situation where deer numbers or impacts are out of control. Planning for the arrival and management of deer in new woodlands is important. The current rate of expansion suggests that deer will eventually spread into all areas of lowland England and Wales with suitable habitat. Without appropriate management the problems of too many deer will also spread. It may be desirable to prevent the spread of deer into new areas or to 'restrict' the spread of native species to former ranges.

Co-operation between landowners is important to achieve effective management. Deer pay no heed to ownership boundaries and can range over wide areas, especially red, fallow and sika deer.

Management of deer problems requires 3 approaches:

- design and management of habitat especially woodlands;
- physical protection of vulnerable areas or individual trees;
- humane culling of deer over reasonably large areas to reduce and then maintain numbers at an acceptable level.

Sometimes protective measures such as fencing may be enough to prevent problems in the short term eg for gardens, but usually a combination of approaches will be necessary.

### *The planning cycle*

Whilst woodland plans may well need to forecast activities over a period of twenty years or more it is unlikely that a DMP will be drawn up for more than a 5 year period. Even then it is a working document and must be updated annually to reflect the success or failure of management operations and changes in the objectives or new circumstances as they arise.

### *Using the management plan template*

The pre-requisite to setting deer management in place is for the landowner(s) or their representatives to establish the current condition and desired objectives. For this to be effective they must have or obtain sufficient deer management advice and knowledge of deer numbers, distribution and impact to be able to develop a deer management plan matched to the aspirations and aims of the landowner.

A DMP does not need to be a complicated document. Clearly the larger the area or the more diverse the land use and management objectives the more complex the plan.

The template provides enough information for a 'stand alone' document but it may well be that the sections relating to deer management (Sections 4-7) will form part of a more comprehensive woodland or estate plan.

An electronic version of the template is available on request.

## *Section B: Guidance notes for woodland owners and managers*

The Management Plan Template has been designed to be used for any woodland in England and Wales. As a result, it needs to cover every possibility which makes it quite long. However, this does not mean that the deer management plan will necessarily be long. For most woodlands a management plan will already have been written and the deer management sections should simply form an annex to this plan. In some circumstances however it may be desirable for the DMP to be a stand alone document and the template is designed to this end.

### *1. Background information*

This section is used to compile all the basic information about the woodland(s) such as location, the main physical characteristics and any relevant historical information. It is a good place to record any background information which exists and may be useful. Even information which is not immediately needed, but may become important in the future can be included.

In many cases the easiest way to present the information will be through one or more maps. This is discussed in each section.

#### *1.1. Location*

The location of the woodland or woodlands included in the management plan should be marked on a 1:50,000 or 1:25,000 scale map [Map xx] which shows key location features such as the boundary of the woodland(s), the boundary of the estate if appropriate, access point from the nearest road and if possible nearby features or settlements.

In addition, it is useful to note commonly requested information in the main body of the plan:

- The nearest town, village or landscape feature e.g. 5 miles south of Greendale; or on the east side of the Green River valley.
- The grid reference of the woodland(s) or of the estate as appropriate.
- The area of each woodland and/or the total area covered by the plan.

#### *1.2. Description of the woodland in the landscape*

This section should provide an overview of the woodland or woodlands within the wider context. It will eventually combine what you already know about the woodland(s) with any additional information collected during the development of Section 2. A lot of the information can probably be presented best in the form of maps (Map xx). This includes things like location, roads and tracks, soils, topography, viewpoints, ecological features, neighbouring land use (particularly other woodlands or natural vegetation) and so on. In some cases, it may be possible simply to refer to a map without any further text.

However, it may also be useful or necessary to include some text in the main body of the plan. This might include, for example, noting that a particular woodland is visible from a busy road, or that it is used extensively for recreation.

Remember, this section is an overview of the woodland within the wider context rather than a detailed description of the woodland itself.

### *1.3. History of management*

You should give a brief overview of the management applied in the recent past. You should try to explain how recent past management has shaped the wood and led to its current condition. The aim here is to indicate any recent changes in overall goals, intensity of management or use of the wood. If operations have taken place in the recent past it will be useful to outline these, e.g. if harvesting has been carried out details of location, method and yield will be useful. Again it might help to use a map to convey some or all of this information [Map xx].

If you have records or other documents which are relevant, there is no need to repeat all the information here. It is quite sufficient to make a reference to the relevant documents or, if it would be useful, to include a summary.

### *1.4 Boundary factors*

Often the management of deer populations are affected by outside factors that you have no control over, here you should try and identify these. An example of this may be a highly populated urban area, which may mean pressure from dog walkers at times of day when stalking may be undertaken. Effects from either well managed or under managed populations adjacent to your property will also impact on your management decisions.

## *2. Woodland information*

The key to managing your woodland well is knowing it well. This provides the basis for a good understanding of the potential impacts of planned management both on the wood itself and on the wider neighbourhood. Since this information is fundamental to good forest management, both the UK Forestry Standard and the UK Woodland Assurance Standard (UKWAS) provide guidance on the type of information which must be collected.

This section is about collecting and summarising this information to provide the basis for making management decisions.

In practice this will almost certainly be an on-going process since some information will be easily available and some will not. In addition, while some information is definitely needed in order to formulate objectives and plan operations, other information may only be needed if certain objectives are chosen, or certain operations carried out.

Don't worry if you do not have all the information for this section immediately. Management planning is an interactive process and you can usually carry on developing the plan as you wait for the 'definitive' survey or report on your wood. You may even decide that the collection of some information will even become a part of the plan.

## ***2.1. Areas and features***

Every woodland contains some particular feature or area of interest or importance. This section provides a systematic way of reviewing those which are found in the woodland(s) covered by the plan.

Use the table in this section to help you identify the key features of your woodland. For each feature which you identify you will need to:

- Note in the table in the management plan whether or not the feature is present in the wood, present adjacent to the wood or not present.
- Mark it on a map and note in the table in the management plan which map it is on (UKWAS 6.1.1);
- Add any notes or references to other documents which might be useful.

Where you already have detailed information on a feature, e.g. the schedule for a SSSI, there is no need to re-write this into the plan. Give a brief outline and refer to the document, which you can append if necessary.

## ***3. Future Management***

### ***3.1. Long-term policy or vision***

This section should set out the long-term policy or vision for the woodland. You need to express, as clearly as possible, the overall direction for management of the woodland, and how you envisage the wood will be in say 30-50 years time. This can be quite brief but should be detailed enough to be specific to your woodland. Understanding what you want from your woodland will help you decide between different management options and will be one of the main yardsticks against which to evaluate your progress in the future.

It is therefore worthwhile to consider your long-term policy carefully – everything you plan for your woodland should take you closer to your objectives. The more explicit you can make your long term vision the easier it will be when you come to set specific management objectives later in the management planning process.

Do bear in mind that your long-term policy can be changed at a later date to better suit your needs or the woodland itself. If your policy does change remember to make sure you revise the rest of your management plan to make sure specific objectives and operations are aligned with your new long-term policy.

### ***3.2. Management Objectives and Strategy***

This section covers the owner or manager's objectives for the woodland, the goals which must be included in order to meet the requirements of UKWAS and the development of an overall strategy for the woodland which aims to meet these objectives and goals.

Based on your aspirations and long term policy for the wood and the information gained from appraisal in section 3, you will have to decide what your objectives are for the woodland. The emphasis here is on ends rather than means. Focus on describing the outputs or future condition of the wood rather than the operations that will be necessary to achieve them, which belong in the next section – Management prescriptions.

Examples of objectives might be:

- Maximise revenue from the woodland through timber production, grant-aided restoration activities and leasing of sporting rights.
- Enhance biodiversity by restoring an area of PAWS through regeneration of broadleaves.
- Improve access to the woodland for walkers on permissive pathways while controlling unauthorised access by motorbikes.

Identifying your objectives can be difficult, but having a clear long-term vision will help you. Try to make your objectives as specific as possible, as this will in turn help you to develop the correct management activities and identify what and how you need to monitor progress in section 7. Much of the information may be most conveniently developed and presented in the form of maps.

One way of developing your objectives is to list all the outputs your woodland can provide or the woodland conditions you are hoping to achieve. Try to prioritise these where this is needed – which are the key ones which should be the focus of attention, effort and resources? This may include some zoning of the woodland to allow a particular objective to be met in one area, while meeting a different (and potentially conflicting) objective in another area.

Where it will take a long period to reach objectives, it can also be useful to split these down into long-term and short-term objectives, helping you to identify what is achievable in the short and longer term. However, regardless of how you identify your objectives you have to make sure your objectives are: **Specific, Measurable, Achievable, Relevant and Timebound**

The strategy for the woodland is where you bring together all the various objectives, requirements, resources and constraints and decide how you intend to manage the woodland overall to achieve the desired objectives with the resources available.

For many woodlands this involves some degree of zoning:

- one area for timber production another for conservation.
- one area for intensive management, another for trying out lower impact management systems.
- one area for public access, another for private amenity.

However, zoning is not compulsory, and many woodland managers, particularly those with very small woodlands, may prefer to have multiple use of the whole woodland with the exception of small areas set aside for non-intervention.

While planning your overall strategy, it is very important to take into account not only what is within the woodland, but also what is adjacent to it, and how the woodland fits into the wider landscape (UKWAS 3.1.2).

Strategies for woodlands are very frequently summarised as one or more maps [Map xx], though it may be useful to have some text as well.

Existing public access including public rights of way and permissive rights of way must be maintained (UKWAS requirement 7.2.1). If there is demand for further access you must address this (UKWAS requirement 7.2.2 and 7.2.3). For medium or large woodlands assess whether there is a demand for further access through consultation.

## ***4. Deer – The Current Situation***

### ***4.1. Historical perspective***

The future management of deer in woodland should be planned in the context of the history of deer in the surrounding countryside. Deer are seen by many as being part of our cultural heritage and future management must take account of this. Therefore whilst it may be necessary to accept a long standing fallow population in an area the management prescription for incoming muntjac deer may be different.

### ***4.2. What species are present or are likely to be present***

The future design of woodlands and potential forest operations must reflect not only the current deer population but also the likely spread of deer. All species of deer in the UK are currently increasing in range and number and the impact of new species must be identified and included in the plan.

### ***4.3. What are the current impacts***

In the early stages of drawing up a DMP it should be possible at the very least to identify the impacts of the current deer population. Whilst the table shows a gradation of effects it may be that initially a simple judgement of 'acceptable impact' or 'not acceptable' will suffice to initiate the plan.

### ***4.4. Current Deer management***

Clearly any future plan must take into account current management. If deer are present in the woodland and are being culled, yet the impacts are still unacceptable then a change in regime may be necessary.

One of the major difficulties for small woodland owners is that they are often unable to adequately control the deer within their woodland and surrounding landowners may have a different perspective. If deer densities are to be controlled this must occur at a landscape scale and the most efficient way of achieving this is through DMGs. Where a woodland is within a current DMG areas and the owner is not participating the reasons should be given. If the woodland is outside a current DMG area then consideration of forming a DMG should be included in 6.2.

Details of all current methods of control should be included e.g. fencing and chemical protection as this may influence future plans.

## ***5. Proposed Future Management***

### ***5.1. Objectives***

The detailed deer management objectives (consistent with the overall Policy statement exemplified in Section 3) should be listed. A brief format is included in the template but more detailed objectives might include:

- To establish a specific deer population, size and structure in the immediate or longer term
- To reduce damage to agriculture, forestry and the natural heritage (set target and timetable for reduction of complaints)
- To increase average carcass weights (Specify the % and time scale)
- To enhance deer management related income and maintain or increase the employment of stalkers (set out financial and employment targets)
- To favour one species of deer rather than others (e.g. reduce roe numbers by 25% over 3 years)
- To develop and implement a DMG policy on public access
- To co-operate in the marketing of venison within the Group area (e.g. Group sales contract)

## ***6. Strategy***

### ***6.1. Confirm deer populations***

The density of deer on open range can be calculated by dividing the total number of deer counted by the total area occupied by the deer. It is usual to express density as the number of deer per square kilometre (100ha, 247ac), which is equal to a grid square on a 1:50,000 Ordnance Survey map. For woodland deer populations where dung counting has been used, the results will be expressed as a density, which will reflect the average density of deer using the site over a time period equal to the dung decay period (usually the previous 9-12 months). Explain how the density figure relates to deer distribution – are deer concentrated in specific areas or spread evenly across the area? Calculate local densities if appropriate e.g. for woodland regeneration areas. How do these change during the year? Other data that might be added includes:

- **Reproductive performance**  
Data on the proportion of adult and yearling female deer that become pregnant and the proportion of adults lactating.
- **Recruitment**  
Assessments of the numbers and rate of recruitment to the adult population. Recruitment is the number of calves surviving their first year. This can be estimated from calf:hind or kid:doe ratios recorded in open range counts or sample counts in woodlands, before the start of the next calving but after winter mortalities. The rate of recruitment can be expressed as a percentage by dividing the total number of kids or calves by the total number of females over one year old, and multiplying by 100.
- **Mortality**  
Where information is available, describe numbers of deaths from and trends in natural mortality, road traffic accidents, and other known losses such as unlawful killing.

## 6.2. Collaboration

As noted in Section 4.4.2 in many woodlands it will not be possible to achieve the objectives without collaboration with adjoining landowners and managers. Where necessary this section should identify actions to be taken to achieve this collaboration. The Deer Initiative for England and Wales will assist in the setting up of DMG's where this is appropriate and necessary and advice should be sort at the earliest opportunity.

## 6.3. Identify cull requirement by species

Depending on the objectives it may be necessary to set a target cull for one or more species of deer. Cull data can be set down in table form for each species. The culling impact should also be recorded here, is the objective to maintain deer populations at the current level or reduce numbers or allow populations to increase.

Season	Males		Females		Juveniles		Totals	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
2002/3								
2003/4								
2004/5								
2005/6								
2006/7								
Totals								

## 6.4. Other management activities to support/replace culling

It is likely that in many woodlands culling will be required but other management activities to aid deer management, such as woodland design requirements, ride maintenance and fencing should be identified in this section.

## 7. Monitoring

### *What is monitoring?*

Monitoring is an essential element of good forest management and almost all forest managers undertake a range of monitoring as part of their normal routine.

The most straightforward type of monitoring is operational monitoring – checking that what has been planned is actually being done in practice. This is generally particularly important in big organisations where the person who has the responsibility for planning and management is not the one actually carrying out the activity. In small organisations where the manager both plans and implements, there is clearly no need for the manager to monitor themselves. However, even in small organisations, it is quite common to have various operations carried out by subcontractors, and in this case it is important to monitor what they are doing. This type of monitoring does not have to be complex – a simple site visit is usually enough.

A second vital role of monitoring is to make sure that the actions and operations being undertaken are resulting in the planned results so that the objectives of the management plan and, where certification is an aim, the requirements of UKWAS are being met.

Forest managers often think that this type of monitoring is complicated, expensive and time-consuming. While this may be true occasionally, it is certainly not the norm as the example below shows.

In planning what monitoring is needed, it is useful to go through the following process for each objective, requirement or plan:

- What information will be needed to make sure requirements, objectives and plans are being met?
- How will the information be collected
- How will the information be analysed and used?
- How will the results of monitoring be fed back into management planning.
- This is shown in the example below.

Objective:	Control of deer to a level which will allow natural regeneration
Information needed	Number of deer shot Damage to regeneration
Collection of information	The number of deer shot will be reported by the consortium leasing hunting rights each month. The damage to regeneration will be checked in three half hectare areas in the woodland quarterly.
Analysis of information	Number of deer shot plotted on a graph on the wall. Percentage of regeneration with damage calculated (eg six saplings out of 30 in the area gives 20% damage).
Management planning	If the number of deer shot rises or drops significantly contact consortium leader for more information If the level of damage goes above 35% further plan and undertake further action to reduce deer numbers.

- In some cases there are a range of ways in which an objective can be monitored which vary in terms of cost and effectiveness.

For example, assessing deer numbers through dung counting may be the most accurate, but it is also expensive and time-consuming. Checking the extent of habitat is much quicker and cheaper, but also less accurate.

In deciding which approach to use, it is important to consider:

- How important the objective is to the woodland.
- The level of risk associated with not meeting the objective.
- How the information will be used.

### *Developing a monitoring plan*

The range of things which needs to be monitored is specific to each woodland depending on the type of woodland and the objectives of management. The first stage in developing a monitoring plan is to decide what needs to be monitored. In deciding this always think about what it is you need to know in order to be sure that your objectives are being met and the requirements of the standard are being complied with.

Monitoring plans should be specific in laying out:

- What will be done
- When it will be done
- Who will do it
- How will the information collected be reported, analysed and fed back into management.

The management plan template provides a table for doing this. An example of how this might be used is set out below. However, some people prefer to plan monitoring in a text format – there is no need to use the table if it isn't helpful.

Another alternative which some people prefer is to record the plan for monitoring a particular objective or operation together with the plans for undertaking the work in the preceding sections. In this case, the monitoring plan section should just contain a summary or list of the planned monitoring activities.

Objective, issue or UKWAS Requirement	Indicator	Method of assessment	Monitoring period	Responsible	Use of information
Deer numbers/ Density		Dung counting	Annual	Stalker	Production of cull target
Browsing on young trees	Leader damage	Nearest neighbour	Annual (summer)	Contractor	Validation of cull targets

## **8. *Health and Safety issues***

There is a Health and Safety section in the Operating Agreement which should also be consulted. In considering the need for culling and carcass handling Health and Safety issues must be considered. Detailed advice on HSAW and deer management operations is available from the Deer Initiative.

## **9. *Cost Implications***

In most woodland situations in England and Wales deer management is likely to result in a net cost. There may be an income generated through sporting lets, accompanied stalking or venison sales, but this is unlikely to offset the true cost of the impacts. You should use this section to carry out a reconciliation of identifiable costs and income over the period of the plan.

## **10. *Venison***

The final product of deer management is the venison and it should be clear for all parties as to what should happen to this venison, is it going to be sold to the local gamedealer, or sold through farm shops or kept for your own use?

It must be remembered that if you are planning to sell venison to anyone other than a gamedealer, you are required to obtain the relevant licenses from the local authority.

## *Review*

It is essential that you agree and set down the procedures and programme for reviewing and modifying the Plan. The Plan should be discussed and reviewed regularly by the owner. Certain aspects, for example the setting of culling targets, will be a matter of annual review and there will be a requirement that some data will be updated annually. However, the overall Plan should be set for a longer period, probably 5 or 10 years, with the expectation that it will continue to be used in an evolving form indefinitely.

## Useful Reading

### *Vegetation survey, assessment and management*

England Field Unit, Nature Conservancy Council	1990	Handbook for Phase 1 habitat survey – a technique for environmental audit.	Reprinted by Joint Nature Conservation Committee Peterborough 1993	
Peterken GF	1998	Woodland Conservation and Management. 2 <sup>nd</sup> ed	Chapman and Hall, London	Includes Stand Type classification for native woodlands
Rodwell J S Ed	1991	British Plant Communities Vol 1 Woodlands	Cambridge University Press	
Rodwell J S Ed	1991	British Plant Communities Vol 2 Mires and Heaths	Cambridge University Press	
Rodwell JS	1992	British Plant Communities Vol 3 Grasslands and Montane Communities	Cambridge University Press	

### *Deer population and performance assessment*

Putman R.J	1995	Technical Report to Contract VC 0316 <i>Status and Impact of Deer in the Lowlands and Options for Management</i>	MAFF, London	
Trout R.C., Putman R.J., Moore N., & Hart J,	1994	<i>A Review of Lowland Deer</i> , Report VC 0308 to Countryside Division LUCC	MAFF, London	
Mayle, Brenda A., Peace, Andrew J., & Gill Robin M.	1999	<i>How Many Deer? A Field Guide to Estimating Deer Population Size,</i>	Forestry Commission, Field Book 18, HMSO London	
Ratcliffe PR and Mayle BA	1992	Roe Deer Biology and Management	Forestry Commission Bulletin 71, HMSO London	

***Deer Cull Data Record***

Estate/Property: \_\_\_\_\_ Stalker: \_\_\_\_\_

Number	Date	Species	Sex	Location	Carcass Weight	Bullet Placement	Age (years) or age class	Pregnancy		Lactation		Comment/notes
								NP	P	Yes	No	