JOINT AGENCY STATEMENT & GUIDANCE ON DEER FENCING

adopted by

DCS, FCS, SNH, SEERAD
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1 Summary

This document seeks to promote best practice and assist both private individuals and public sector agencies in deciding whether to fund and/or permit deer fencing.

Deer fencing can serve a useful purpose for controlling deer, helping to achieve environmental objectives and preventing deer causing a public hazard.

- The full range of options for controlling deer should be considered taking into account effectiveness for purpose and possible impacts on public safety, deer welfare, biodiversity, landscape, cultural heritage and recreation.
- Where fencing is considered appropriate, fences should be designed to minimise their impact on these interests.
- Fencing should be seen as part of a wider programme of deer management and fences should not be left erected for longer than necessary .
- Anyone erecting a deer fence should consider the possible impacts on the wider deer range and particularly adjacent properties and local communities.
- Deer dependent on the fenced off area should be culled.
- Agency decisions on deer fencing will be guided by these principles.
- Approval or financial support for fencing will be dependent on adverse impacts being mitigated.

2 Introduction

In Scotland there is a history of using deer fencing as a tool to manage deer densities and movements. Deer fencing has been particularly successful in protecting public safety and in enabling significant habitat changes to be achieved within a relatively short time, enabling different land management objectives to co-exist in close proximity, whether within or between landholdings.

The purpose of a deer fence is to produce some form of benefit whether in terms of managing grazing or reducing the threat to public safety, benefits which might also be delivered through culling. The construction of a deer fence can, however, have unintentional impacts on other interests including deer welfare, public safety, biodiversity, landscape, cultural heritage and access .

This document seeks to promote best practice and assist both private individuals and public sector agencies in deciding whether to fund and/or permit deer fencing. It presents a policy statement on deer fencing and sets a process for identifying, assessing and mitigating the possible impacts on public interests which can be adversely affected by deer fences. This statement has been endorsed by SE Ministers and will be subject to review as appropriate.

Technical guidance is being prepared which will advise on the implementation of this policy.

3 Policy Statement

Deer fencing, when properly planned for, constructed and maintained, can be an effective way of controlling deer to allow different land-uses to co-exist in close proximity and to protect public safety.

Consideration must be given to the full range of options for achieving appropriate deer densities before deciding on whether or not to approve or financially support the use of deer fences. Decisions on whether to cull or fence should take account of objectives, costs and the pros and cons of each method. Where deer fencing is considered an appropriate approach, the process for identifying, assessing and mitigating any adverse effects, as set out in the following guidance, is to be followed. In circumstances, where it is not possible to satisfactorily mitigate adverse effects, approval or financial support should not be given. Otherwise, the final decision must be based on cost-effective long- term solutions, including the cost of fence removal. Deer dependent on the fenced off area should be culled.

In areas where fences will affect deer movements between land ownerships, the parties involved will need to reach agreement on the use of fencing or alternative methods. The basis of the collaboration should be that those who derive the benefit pay the costs.

Decision by all parties in regard to fencing proposals should be objective, rational and transparent and follow Best Practice Guidance.

4 Using the guidance

This guidance aims to assist with decisions over whether to approve and/or financially support the erection of deer fences in situations where fencing is considered more appropriate than culling for achieving required deer densities.

It sets out a process for identifying, assessing and mitigating the negative impacts deer fences can have on the following 5 areas of public interest.

- Public Safety (Section 5)
- Deer Welfare (Section 6)
- Biodiversity (Section 7)
- Landscape and cultural heritage (Section 8)
- Access (Section 9)

For each subject area 'high' negative impacts are identified and mitigation measures are suggested on how best to remove or reduce the high impact. Reference should be made to more detailed guidance (which, as at March 2004, the Agencies are working jointly to develop) on each of these areas to determine best practice. The principle to be followed is that deer fences should not be constructed in areas where, despite mitigation measures, they are likely to have 'high negative impacts' on public interests.

The assessment of the relative social, environmental and financial costs and benefits of appropriately designed fencing is necessary especially when public funds are involved. This guidance identifies the key variables that need to be taken into account.

- Socio economics (Section 10)

There may be circumstances where no public funds are involved but approvals are required in relation to Environmental Impact Assessment, planning permission or Appropriate Assessments (on *Natura* sites).

If fencing is planned in relation to forestry then the manager should approach FC Scotland at an early stage to ensure that the proposals are compatible with Grant Aid requirements, Forestry regulation and the possible need for EIAs.

4.1 Decision making

Using the guidance identify whether there are any 'high' impact implications associated with the proposed fence.

If there are 'high' negative impacts then explore methods of mitigation to reduce these following best practice, including specifications for different types of fencing (further guidance on fence design is under development as at March 2004), as appropriate.

Based on the design of a fence that has been 'mitigated' consider whether deer control or deer fencing is the most cost effective option. As fences must not remain erected for longer than necessary, this should include the costs of dismantling and removal.

Where the scale or nature of a fence is likely to affect local communities or interested parties, those communities or individuals should be consulted.

Account should be taken of social, environmental and financial implications, in particular where public funds are being used. If a fence is funded privately, provided all legal requirements have been met, then the owner may wish to adopt a solution which best suits his or her own needs, following best practice where appropriate.

5 Public Safety

5.1 Understanding the impact of a deer fence

Road traffic accidents (RTAs) involving deer directly or indirectly are a Public Safety issue as is the presence of deer on airfields. Collisions with the larger species, red deer in particular, can cause injury to the driver and motorcyclists are especially vulnerable to impact by any species. Drivers taking avoiding action, irrespective of the size of the deer, can endanger their own safety and that of other road users.

Fences can confuse deer that are accustomed to crossing a road, trapping them against the road and increasing the likelihood of a deer-vehicle encounter. Fences can also force many deer to cross a road in localised areas again increasing the likelihood of a deer-vehicle encounter.

While time of day, time of year and driver experience are factors in RTA's involving deer, risks to public/road safety and the severity of accidents increase in line with traffic volume and speed,. As a consequence, the assessment of any road safety risk associated with a new fence will need to take into account both the characteristics of the road being assessed and seasonal patterns of deer cross movement.

5.2 Establishing a baseline

On roads with a high or medium risk, an assessment of the current position is essential to allow the increased risk to public safety associated with fencing to be measured. Base-line information may need to be collected from the areas where a new fence is proposed. This could include:

- Time of year and day most deer cross road
- Location and number of deer deaths from vehicles
- Location and number of deer-related accidents
- Location and number of deer within 200m of the road at different times of year and day
- Road type, average speed, traffic volume and driver awareness
- Locations where herding species of deer (red, fallow and sika) cross at certain times of year to gain access to food and shelter.
- home ranges of deer that might straddle the road and where and when they cross

5.3 High negative impact issues

- Fences that channel/funnel deer to cross a road at locations of poor visibility, i.e. . at low radius bends, blind summits or adjacent to tall ground cover or other restrictions to visibility
- Parallel fences close to both sides of a road which create a corridor from which the deer have difficulty escaping.

- A fence on one side of the road running closely parallel to the road.
- Fences that are poorly maintained.

5.4 Mitigation required to reduce negative impacts

- Parallel fences close to both sides of a road must form part of a closed circuit system i.e. using a physical barrier such as a cattle grid on the road. In this scenario a commitment to regular inspection and maintenance of the fence will be required as any deer entry to the system will result in continuous deer-vehicle encounters until such time as an accident occurs or the deer is caught / culled.
- Fencing on one side of the road where deer are used to crossing may require those deer to be culled.
- Fencing must ensure that deer are not channelled/funnelled to cross roads where visibility is restricted by bends, crests, tall ground cover on and behind verges etc.
- Fences must be planned and constructed in such a way so as not to interfere with existing sight lines. Junction visibility splays and widened verges on horizontal curves are examples of engineering measures that provide adequate stopping sight distance in accordance with the speed of traffic using the route. Intrusion into these must be avoided. Further information on minimum available sight distance to the end of a new fence may be sought from DCS or the road authority. Any new fencing, which runs parallel to a road, will require a specific maintenance regime to be put in place to control the height of vegetation between the fence and the road edge to ensure adequate visibility on either side of road. The road authority should be consulted during planning.
- The approaches to all existing, new and planned future deer crossing points of roads must be equipped with warning signs complying with The Traffic Signs Regulations and General Directions

6 Deer Welfare

6.1 Understanding the negative impacts of a deer fence

Fences that prevent access to or enclose areas of ground that deer rely on for forage or shelter may increase the risk of winter mortality through starvation and exposure.

6.2 Establishing a baseline

Information on the numbers and movement of deer that rely on the area, from which they are to be excluded, is desirable. This knowledge includes both seasonal movement and response to different weather conditions to ensure that there is an understanding of when the area is of most importance to deer. Direct counts during critical periods combined with dung counts can be used to provide an estimate of the number of deer utilising the area. When fences are constructed , preventing deer from gaining access to areas that they rely on for forage and shelter, these assessments should be prepared by a party approved by DCS. Where the area being excluded is less than 50 ha, DCS involvement may not be required. DCS advice should be sought to clarify this.

Key information for establishing the baseline includes:

- Defining worst case scenarios
- Estimate of the number of deer using the area, to be fenced out of the deer range, taking account of seasonal usage.
- Comparison of the latest count information with historical data.

6.3 High impact issues

- Removing land from deer or restricting deer access without culling the deer that rely on the area during some part of the year for food and shelter.
- Culling 'additional' deer from the population without targeting those that rely on the area being fenced off.

6.4 Mitigation required to reduce impact

- Culling should follow Best Practice and target deer that rely on the area that is being removed.
- Providing access to alternative grazing and shelter, may reduce the level of compensatory cull required without compromising deer welfare. This approach will require detailed knowledge of deer movement and availability of alternative shelter.
- All mitigation should be accompanied by monitoring and responsive management action

7 Biodiversity

7.1 Understanding the negative impacts of a deer fence

Deer fencing can change grazing and trampling pressure (either increasing or decreasing) on areas either side of the fence. This is of particular concern when the biodiversity interests affected have been formally recognised at the international and national through:

- Special Areas of Conservation (SACs)
- Special Protection Areas (SPAs)
- Sites of Special Scientific Interest (SSSIs)
- Biodiversity Action Plans (BAPs) and Ramsar sites

The value of many sites is linked to an appropriate level of grazing and browsing. Increased grazing and trampling can cause loss of habitats and erosion while reduced grazing pressure can result in a build up of dead and decaying vegetation and increase tree regeneration to the detriment of other habitats. Deer fencing can be a cause of bird deaths due to collision.

7.2 Establishing a baseline

Deer population data and information relating to grazing and trampling pressure are essential in establishing a baseline of current impacts. These impacts should be assessed through determining both numbers and the movements of deer within the area, which if excluded, could increase deer densities out-with the proposed fence line.

Baseline data will need to be prepared by a party approved by DCS on both habitats within designated sites and species including woodland grouse likely to be affected as a result of the deer fence being erected.

7.3 High negative impact issues

- Fencing close to known woodland grouse lek sites
- Fencing in areas identified as core woodland grouse zones by Forestry Commission Scotland.
- Fencing that causes or is likely to cause damage to designated sites or other important habitats for example SAC, SPA, SSSIs and Biodiversity Action Plans (BAP) habitats through increased or decreased grazing or trampling pressure.

7.4 Mitigation required to reduce negative impacts

- Only in exceptional circumstances erect deer fencing within 1km of a lek site (eg overriding public interest – in these cases, fencing should be marked to prevent collisions)
- Deer fencing within core woodland grouse zones may be possible subject to careful sighting and appropriate specification. Such a proposal will need to draw on local information and expertise, including advice from the Capercaillie Project Officer, Forestry Commission Guidance Note 11 - Deer and Fencing, SNH, FC technical booklet on Specifications for Alternatives to Conventional Deer Fencing, RSPB and the Game Conservancy Trust.

- Deer displaced by fencing onto designated sites where they are likely to cause damage will need to be culled.
- A Deer Management Plan based on habitat targets for the designated site should be prepared in collaboration with neighbours as required.
- A licence may be required if fencing is likely to disturb other protected species such as otter, wildcat and badger.

8 Landscape and cultural heritage

8.1 Understanding the negative impact of a deer fence

Scotland's landscape wildland features and cultural heritage can be adversely affected by linear features and unnatural vegetation patches within fenced enclosures. The presence of particularly important landscapes will be indicated by designations such as:

- National Park,
- National Scenic Area (NSA)
- Scheduled Ancient Monuments (SAMs)
- Historic landscapes listed in the (non-statutory) Inventory of Historic Gardens and Designed Landscapes
- Area of Great Landscape Value (AGLV) and other regional and local landscape designations incorporated in statutory development plans

Deer fencing can detract from the visual quality of the countryside, especially when fences run parallel to roadsides and recreational routes or visually impact on skylines.

Deer fencing can detract for the sense of wildness that can be experienced in Scotland especially in remote locations with few human artefacts.

Deer fencing can impact on the historic environment by cutting across existing boundaries, and archaeological sites as well as affecting relict archaeological landscapes, designed landscapes and the landscape setting of individual features.

8.2 Establishing a baseline

SNH **Landscape Character Assessments** highlight the sensitivity of particular landscapes to the introduction of new features such as deer fences and the associated vegetation change. These effects will be of most significance where these landscape qualities are strongly developed, and in locations that are highly visible from major roads, popular hills or other viewpoints.

The **National Monuments Record of Scotland** (NMRS) and the relevant local authority Sites and Monuments Record (SMR), identifies cultural heritage features known to be present in the area to be fenced and define the limits of any likely archaeological sensitivity. HS can provide information on **scheduled (protected) sites**.

The **Historic Land-use Assessment (HLA)** identifies historic land-use patterns and field boundaries, and major relict historic landscapes which may be affected by the erection of deer fences and associated grazing patterns. **The Inventory of Historic Gardens and Designed Landscapes** identifies important landscapes and key landscape features which may also be affected.

8.3 High impact issues

- Areas of high scenic value with high visitor appeal.

- Fencing that detracts from the landscape that brings visitors to the area for example frequently visited hills, popular low-level walks, viewpoints and wild land.
- Fencing that detracts from the integrity or setting of cultural heritage, scheduled ancient monuments, other archaeological sites or historic landscape features.

8.4 Mitigation required to reduce impact

- Use fencing materials and select fence lines which take account of landscape impacts. SNH area staff should be contacted to discuss mitigation options.
- Fences should be located so as to have minimal landscape or cultural heritage impacts by relating closely to landforms and existing landscape features and avoiding archaeological sites and linear features.

- Where fencing might affect the site or setting of a Scheduled Ancient Monument, HS must be consulted in advance. HS and SNH should be consulted on potential impacts within Inventory Landscapes.

The *Forestry Commission's Forest Landscape Design Guidelines* (FC 1994) and *Lowland Landscape Design Guidelines* (1991) and SNH's Landscape Character Assessments offer further guidance to reduce the visual effects of different adjacent grazing regimes in the landscape.

9 Access

9.1 Understanding the impact of a deer fence

Deer fencing, because of its height compared with stock fencing, can be a significant barrier to access. The public have general right of responsible access and, in erecting fences, land managers must make adequate provision for public access.

9.2 Establishing a baseline

In planning a fence, it is important to establish current levels of access for that particular site.

Indications of levels of use through the area can be obtained from owners, occupiers, the Local Authority, SNH staff , DMGs and NGOs such as Mountaineering Council of Scotland and the Ramblers Association.

9.3 High impact issues

Fencing that significantly restricts access.

9.4 Mitigation to reduce impact

An appropriate means of getting through or across fences should be provided taking into account the type and number of users. The location of access points should be clearly marked and where appropriate interpretation provided to explain why deer fences are necessary, and to indicate when they might be removed.

Further information available from the Scottish Outdoor Access Code and the **Countryside Access Designs guidance.**

10 Socio Economics

10.1 Understanding the impact of a deer fence

Deer fencing and deer control are expensive. The social and economic consequences of different options, both in the long- and short-term, need to be considered.

Changes in deer numbers can affect the revenue of estates and have a knock-on consequence for employment. The material and labour costs associated with erecting a fence and the commitment to maintain and remove it are considerable.

Changes in habitat and deer management on one landholding can have significant effects on neighbours and local communities. In this regard a collaborative approach to deer management that recognises the legitimate rights and objectives of all landowners and affected communities is to be encouraged. The basis of the collaborative approach should be that those who derive the benefit pay the costs and that all relevant interests have been given a realistic opportunity to make their views known.

Deer fencing can allow different land use objectives to be maintained in close proximity. In constructing a fence there should be a careful cost-benefit analysis to establish the most cost-effective way of delivering the land use objectives, especially if public funds are used. If a fence is funded privately, provided all legal requirements have been met, then the owner may wish to adopt a solution which best suits his or her own needs, following best practice where appropriate.

10.2 Establishing a baseline

If the proposal affects deer that range over more than one landholding, a collaborative approach that recognises that those who derive the benefit pay the costs, should be encouraged strongly.

Key socio-economic variables to be considered are detailed in the table below. The data required to inform the analysis should be collected by a party approved by DCS, directly from records and accounts of owners and independent quotations from contractors. When cost-benefit analyses for different approaches are similar, consideration should be given to which approaches contributes most in the long term to local social and economic stability. Solutions that result in money circulating in the local economy should be given preference.

Table of key socio-economic variables

	Current position	Fencing	Deer control
Economics			
		Cost of fence materials	
		Cost of construction	
		Cost of fence removal	
	Running costs (total and per deer culled)	Running costs (total and per deer culled)	Running costs (total and per deer culled)
	Income (venison sales and sporting income)	Income (venison sales and sporting income)	Income (venison sales and sporting income)
Employment			
	Man days related to deer control	Man days to construct fence. Man days to maintain and remove fence. Man days to control deer inside fence	Man days to control deer at lower density

11 References and Further reading

In addition to the references listed below, further information may be obtained from local DCS, SNH and RSPB field staff and from the Forest Research Agency (Alice Holt) on fencing, and from HS, the National Monuments Record of Scotland (NMRS) and the relevant local authority Sites and Monuments Record on cultural heritage features.

Andrew, M, and Baines, D (1997). The impact of deer fences on woodland grouse and other forest birds. Report to SNH, Millennium Forest for Scotland Trust and RSPB. Game Conservancy Trust, Newtonmore.

Moss, R. and Picozzi, N. (1994) Management of Forests for Capercaillie in Scotland Forestry Commission Bulletin 113. HMSO, London.

Petty, S.J. (1995) Assessment of Fence Collisions by Grouse Species in Scotland. Research Information Note 264. Forestry Commission, Edinburgh.

Forestry Commission (1992) Lowland Landscape Design Guidelines

Forestry Commission (1994) Forest Landscape Design Guidelines

Forestry Commission (Scotland) Deer and Fencing. Guidance Note 11

FC/RSPB (interim best guidance note) Alternative Deer Fences in Core Capercaillie and Black grouse habitats

Historic Land-Use Assessment, Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS), Edinburgh.

The Inventory of Historic Gardens and Designed Landscapes, Scottish Natural Heritage/Historic Scotland, Battleby/Edinburgh.

Landscape Character Assessments, Scottish Natural Heritage, Battleby.

Natural Heritage Management – Countryside Access Design Guide 2002, Scottish Natural Heritage, Battleby

Scottish Outdoor Access Code