

Scottish Programme for Protected Woodland Sites



**Deer
Commission
for Scotland**



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Introduction

This note sets out the action required to improve designated woodland sites and bring them into favourable condition. The Scottish Forestry Strategy 2006 made this a priority action, and FCS undertook to develop a programme as part of the 2007/08 Implementation Plan for the strategy.

The plan has been put together by Forestry Commission Scotland (FCS), Scottish Natural Heritage (SNH), Deer Commission Scotland (DCS) and Scottish Government Rural Payments and Inspections Directorate (SGRPID) to guide our joint efforts over the period of the strategy up to 2015.

This work will also contribute towards a Scottish Government target set in 2006, to bring 95% of the special features of Scotland's nationally important nature sites into favourable condition by 2010, which has since been adopted as a high level target for the Scottish Rural Development Programme.

This plan focuses on all sites designated as woodland habitat features within SSSIs or SACs in Scotland. There are currently 486 such features. These woodlands also support around 250 designated species features. However other sites that are designated only for species and not for woodland habitats are outside the scope of this programme because they often include a mixture of wooded and open land.

What is the condition of our protected woodlands?

Site Condition Monitoring Results

SNH's area staff assessed 98% of designated woodland features between 1999 and 2005 in the first national round of Site Condition Monitoring (SCM). The methods are described in the JNCC Common Standards Monitoring Guidance for Woodland (2004), <http://www.jncc.gov.uk/page-2238>.

SNH's woodland advisors have recently quality assured the results for all the woodland features which were assessed as being in 'unfavourable' condition and have now re-assessed 23 as 'favourable' or 'recovering'. The adjusted SCM results are shown in Table 1. Approximately 60% of woodland features were in 'favourable' condition or were 'unfavourable but recovering' at the time of assessment. Both these categories count towards the target.

Although the national target is set in terms of the proportion of features in good condition, an area analysis is vital to understand what needs to be done and how much it will cost. The woodland area associated with these features has been estimated by measuring the spatial overlap between datasets for SSSI and SAC boundaries and for semi-natural woodland as shown by the Scottish Semi-Natural Woodland Inventory (SSNWI), a dataset owned by Highland Birchwoods.

Scottish Programme for Protected Woodland Sites

Table 1: Summary of condition of woodland features from the 1999-2005 SCM assessments

	Unfavourable features	Recovering	Favourable	No data	Total
Area (ha)	20,400	9,300	13,500	460	43,700
Percentage by area	47%	21%	31%	1%	
No. Features	190	59	226	11	486
Percentage by number	39%	12%	47%	2%	

The reasons why woodland features are in unfavourable condition have been collated from the SCM assessment forms, which indicate the proportion of each feature that failed to meet condition criteria or targets. This has been used to provide a rough estimate of areas requiring further work (Table 2).

Table 2: Main causes of unfavourable condition from the 1999-2005 SCM assessments

Issue	Area (ha)	% area	No. features	% features
Excessive browsing or grazing	18,500	91	142	75
Sycamore and other introduced trees	330	2	58	31
Rhododendron	210	1	50	26
Excessive bracken	350	2	25	13
Total not in favourable* condition	20,400	47	190	39

* ie areas of features not either 'favourable' or 'unfavourable recovering'

By far the most widespread problem is overgrazing and browsing, mainly by deer. The other problems are more restricted in area but can be expensive to deal with, for example dense rhododendron choking out regenerating seedlings and field layer plants, or heavy shading from non-native species of conifers, sycamore or beech.

Action already taken to improve condition

Woodland grant schemes, work on the National Forest Estate (NFE) and SNH's Natural Care Agreements, are already helping many unfavourable woodland features to recover. It is difficult to measure their contribution towards the targets without assessing each individually as many projects only address part of a feature or some of the reasons for unfavourable condition.

For private woods we assumed that for areas receiving grant under the Scottish Forestry Grant Scheme for 'Stewardship of native woods' and/or 'deer management,'

Scottish Programme for Protected Woodland Sites

the work carried out was likely to have been significant in improving the condition of the feature. Over 2500 hectares were approved for these grants from the start of SFGS in April 2003 until it closed in 2006. These have been removed from the programme on the basis that no other action should be needed, at least until the current schemes expire.

The work and costs needed to improve the remaining sites, as at April 2007, are summarised in Table 3. The total public cost for improving all these sites was estimated at a minimum of £5 million. This is very much a minimum figure as it assumes a package of five years' work for each site would be sufficient for recovery and does not include ongoing costs which may often be needed to maintain improvement eg for deer control. Nor does it include further work for sites that are already classed as favourable or recovering.

For private woodland sites, we estimated the public costs of work required, based on standard costs of options available to support land managers under the Scottish Rural Development Programme (SRDP).

Annex I gives a summary of estimated costs and assumptions. For sites on the National Forest Estate, a more accurate profile of work and costs was drawn up by local FES staff.

Table 3: Summary of work and estimated cost to improve unfavourable features as at April 2007

Actions required	Area (hectares)*				Cost (£k)			
	SRDP	FES	SNH	Total	SRDP	FES	SNH	Total
Grazing control	13,657	232	496	14,385	**2,754	56	77	2,887
Non-native tree removal	265	15	31	311	200	41	43	284
Rhododendron control	206	5	36	247	**1,444	68	38	1,550
Bracken control	345	12	45	402	58	2	10	70
Other ****	1,965	-	-	-	283	-	16	299
Total cost (£k):					4,739	167	184	5,090

*Excludes areas where actions taken before April 2007 are already leading to recovery.

**Allows extra costs for deer control on open range areas adjacent to larger sites

***Allows for extra costs for clearance of rhododendron from land adjacent to the site.

****Includes action to promote an 'old growth' structure and control other non-native invasive species such as Japanese knotweed

Scottish Programme for Protected Woodland Sites

During 2007/08 there has been considerable work on unfavourable sites on the National Forest Estate and a short-term programme of action on privately owned sites has been supported by SNH's Natural Care programme. SNH estimate that this work will have brought a further 19 features totalling 1600ha into recovering status by 31 March 2008.

What action is still needed?

At 1 April 2008 we estimate that 158 (32.5%) of designated woodland features, covering 15,800 ha, are still 'unfavourable and not recovering'. To reach the 95% by 2010 target for woodland features would require 134 of these features (approximately 13,700ha) to be recovering by March 2010, with a minimum public cost of £4.8million. This is a very challenging target, not least because many sites do need time to give careful consideration to agree proposals especially those needed to tackle deer management collaboratively between landowners.

The full details of the current status of all designated woodland sites can be found on the SiteLink on the SNHi website <http://www.snh.gov.uk/snhi>.

How will we tackle this work?

FCS, SNH, DCS and SGRPID will work together to:

- promote suitable management of private land using SRDP grant support and other resources;
- manage those features that are on public land to improve their condition;
- monitor the success of the work.

In doing so we will seek to foster collaboration amongst owners and encourage planning for these sites in a wider landscape setting, including expanding and linking designated sites within woodland habitat networks.

Nearly all the remaining unfavourable features are on privately owned land which is not in any current management schemes. The main focus of the effort in the programme will therefore be to bring these areas into suitable management under the SRDP.

The Scottish Rural Development Programme

We will encourage landowners and occupiers to carry out management to improve sites with support from the Scottish Rural Development Programme (SRDP). Under the SRDP, bringing the special features on designated sites into favourable condition to meet the 2010 target is a national priority and this priority is reflected in the Regional Prioritisation Statements drawn up for each SRDP region of Scotland.

We will work to promote uptake of suitable SRDP options and target promotion to owners and managers of unfavourable sites and adjacent areas, using personal contact and site visits, backed up by seminars or other means. Sites will be prioritised

Scottish Programme for Protected Woodland Sites

regionally to bring forward those most in need of urgent attention, eg in response to increasing threats and those where there is a positive opportunity for early action.

There are a number of measures that can be used to improve condition of designated native woodlands and to address the particular threats identified for each site. The costings and assumptions in Annex 1 show the main relevant SRDP support measures needed to address the key issues.

The main SRDP options are Forest Environment Payments which support sustainable management and Woodland Improvement Grants to support the work needed to make rapid improvements in condition, for example by removing exotic species. Where deer management on adjacent open range areas needs to be tackled, this can also be supported under the package of Moorland options.

Guidance on these SRDP options is at <http://www.scotland.gov.uk/Topics/Rural/srdp>.

National Forest Estate

On the national forest estate FES are managing designated woodland sites as a priority. All SSSIs on the NFE are subject to management agreements, which can be stand alone or incorporated into a Forest Plan. Other designations do not have management agreements but should be covered by Forest Plans.

Much has already been done since the SCM condition assessments were made including £137k spent in 2007/08. FES has worked with SNH during 2007/08 to agree what work is still required on the remaining 17 sites with unfavourable features that are partly or wholly on the NFE. FES aims to bring at least 14 of these sites into suitable management on the NFE portion of them by 2010. The remaining 3 sites require a partnership approach either because a very small percentage of the site is in FES management or because a wider collaborative approach will be needed eg for deer management.

FES intends to spend £400K in total over the period up to 2012/13 on sites with protected woodland features, including work to secure areas that are already recovering or maintain those in good condition.

SNH managed land

SNH owns around 660 hectares of woodland sites which were classed as unfavourable in the SCM assessment. Due to work since then, all of these areas are now considered to be either favourable or recovering and work will continue to complete their recovery.

Dealing with grazing problems

Nearly all unfavourable sites have grazing pressure as one reason for poor condition. For some sites with more significant and complex grazing problems, FCS, SNH, DCS and SGRPID are already working together to promote integrated solutions to grazing and trampling problems through a *joint working programme*. The aim is to present opportunities for owners by making a comprehensive package available which may combine deer and sheep reduction and, where appropriate, assistance in the form of

Scottish Programme for Protected Woodland Sites

advice and payments for continued management in the interests of habitat enhancement and/or woodland regeneration.

Information on the joint working programme on grazing impacts is at [Joint Action on Deer Management Home](#)¹. It currently includes 62 unfavourable woodland features. Sites are selected based on the importance of the site and the significance and urgency of the grazing threats.

Sites with less complex grazing issues will not need to be added to the joint working programme and should be tackled by regional collaboration as described below, as part of this protected areas programme.

How will the Scottish protected areas programme be managed?

FCS, SNH, DCS and SGRPID will work together to steer the overall programme and monitor progress at national and regional levels. Partners will agree regionally what approach is suitable to improve the condition of each site, including which sites with grazing problems should be handled through the joint working programme. FCS will then lead in establishing contact with site owners or managers to promote the potential support options within the Scottish Rural Development Programme.

Reporting progress of the programme

We will monitor and report progress using summary spreadsheets maintained by SNH. These will show progress towards meeting the 2010 target in terms of additional areas brought under management and numbers of unfavourable features assessed as recovering.

Features will be assessed as 'recovering' when appropriate management is in place that SNH considers will allow the condition of the feature to become favourable over time. Features which are included in an approved scheme of suitable improvement work, or where the work is already in progress, will be classed as 'unfavourable recovering' and so will count towards the target.

¹ <http://www.scotland.gov.uk/Topics/Rural/JointAction/deerhome>

Scottish Programme for Protected Woodland Sites

Annex 1

Estimated programme costs

We anticipate that the Scottish Rural Development Programme (SRDP) will meet the majority of programme costs. We have estimated the cost of works required based on the standard costs of options available under the SRDP and the amount of work indicated by the Site Condition Monitoring assessment forms. Work on the National Forest Estate and works funded by SNH under Natural Care are based on budget costs.

Table 1 Estimated programme spend by funding partners

Profile of costs (£ k)	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
SRDP Rural Priorities	-	680	1,019	1,547	902	225	226	140	4,739
Forest Enterprise Scotland	78	12	31	20	12	14	-	-	167
Scottish Natural Heritage	37	123	19	5	0	-	-	-	184
Total	115	815	1,069	1,572	914	239	226	140	5,090

Table 2 Breakdown of SRDP costs by SRDP Region.

Region	Cost (£k)
Highlands	2,028
Argyll	1,108
Grampian & Moray	754
Clyde Valley	277
Forth	244
Tayside	189
Ayrshire	105
Borders	55

Scottish Programme for Protected Woodland Sites

SRDP Rural Priorities

We divided the woodland options under SRDP Rural Priorities into *whole scheme operations*, which we assumed would cover the whole designated woodland area, and *sub-compartment operations* that involve only a portion of the woodland area. From the SCM assessment forms we estimated the area of woodland on each site requiring further work and multiplied this by the standard costs for the relevant woodland options. The allocation of costs to years assumes that most areas will enter SRDP schemes in the first three years: this may prove to be too optimistic and actual uptake costs may be spread over a longer period.

Table 3 summarises the estimated total cost of the works required. A detailed spreadsheet is available on request.

Table 3 Estimated programme costs under the SRDP

Profile of costs (£ k)	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
Whole scheme operations									
Forest plan preparation	-	45	72	86	47	-	-	-	250
Native woodlands management	-	19	59	131	153	153	134	94	742
Removal of livestock	-	9	18	37	52	52	43	34	246
Woodland deer impact reduction	-	70	64	98	55	-	-	-	286
Open range deer management	-	113	129	184	114	-	-	-	540
Fencing	-	72	147	465	256	-	-	-	940
Sub-compartment operations									
Dead wood	-	7	6	7	6	-	-	-	26
Structure / open space	-	1	-	1	-	1	-	0	4
Sycamore	-	4	24	5	25	5	25	1	89
Other non-native trees	-	3	20	14	24	14	24	11	111
Rhododendron	-	331	450	498	165	-	-	-	1,444
Other non-native species	-	0	2	-	-	-	-	-	2
Bracken	-	7	28	21	3	-	-	-	58
Small scale planting	-	-	1	-	-	-	-	-	1
Total	-	680	1,019	1,547	902	225	226	140	4,739

Scottish Programme for Protected Woodland Sites

Table 4 Cost assumptions for whole scheme options

Management Option	Standard costs	Assumptions
Forest plan preparation	<ul style="list-style-type: none"> • £20 per hectare up to 200 hectares • £5 per hectare thereafter • with a minimum payment of £500 	Only a few of the larger woodlands are over the 200 ha threshold. If these sites had multiple owners we adjusted the line in the spreadsheet manually.
Native woodlands management	<ul style="list-style-type: none"> • £28 per hectare per annum 	Sustainable woodland management will address the majority of grazing management issues.
Removal of livestock	<ul style="list-style-type: none"> • £41 per hectare per annum 	Removal of livestock only required on sites where this is identified as an issue on the SCM form.
Woodland deer impact reduction Open range deer management	<ul style="list-style-type: none"> • £30 per hectare one off payment, • £3 per hectare one off payment 	These two options will be used in conjunction to address grazing impacts on woodlands <100 hectares within the red deer range. Deer populations need to be managed over a larger catchment area, whether or not fencing is used. Open range deer management will take place over a range 20X the woodland area, subject to a minimum payment of £10,000 and a maximum payment of £50,000.
Fencing	<ul style="list-style-type: none"> • 200 per hectare one off payment. 	Fencing will be required to address approximately 25% of the area affected by grazing and browsing. Based on previous schemes, fencing will cost on average £200 per hectare, subject to a minimum of £10,000.

Note: For planning and grazing management options we used the whole woodland area, less NFE or SNH land or land under a Scottish Forestry Grant Scheme (SFGS) contract, the assumption being that these areas are already under appropriate management.

Scottish Programme for Protected Woodland Sites

Table 5 Cost assumptions for sub-compartment options

Management Option	Payment Rate	Assumptions
Deadwood management	<ul style="list-style-type: none"> £40 per hectare one-off payment 	For larger sites, only required over 50% of site area.
Structure/open space	<ul style="list-style-type: none"> 150 per hectare in years 1, 2 and 3 	Standard cost for pre-commercial & non commercial thinning
Sycamore	<ul style="list-style-type: none"> £300 per hectare in years 1, 2 and 3 	Double the standard cost for pre-commercial & non-commercial thinning.
Other non-native trees	<ul style="list-style-type: none"> £250 per hectare in years 1, 2 and 3 	1½ X the standard costs for pre-commercial & non-commercial thinning or equivalent to removal of tree crop to waste 3m–6m high.
Rhododendron control	<ul style="list-style-type: none"> £7,000 per hectare one-off payment 	Double the standard cost for manual eradication of rhododendron. Makes allowance for clearance of potential seed sources from neighbouring land.
Other non-native species	<ul style="list-style-type: none"> £160 per hectare one-off payment 	Standard cost for control of invasive non-native species.
Bracken treatment	<ul style="list-style-type: none"> £200 per hectare one-off payment 	Standard cost for primary treatment of bracken
Small-scale tree planting	<ul style="list-style-type: none"> £2,750 per hectare one-off payment 	Standard cost for small-scale tree and shrub planting

Notes

1. For vegetation management and thinning options, we used the proportion of designated woodland area affected by non-native trees and shrubs, bracken or lack of variety in age structure or deadwood. These proportions were derived from the SCM assessment form and are indicative only. On most sites further survey work will be needed to establish the costs of works required to get them to recovering status.

2. Controlling sycamore, beech and rhododendron on designated sites can cost significantly more than standard costs. In these circumstances, payments may be based on actual costs. We have therefore used higher rates for estimating these costs.