

Dornoch Forest District

Strategic Plan 2007 - 2017

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Planning framework

1.1 Context

Forestry is the responsibility of Scottish Ministers. Forestry Commission Scotland (FCS) acts as the Scottish Executive's Forestry Department. Forest Enterprise Scotland (FES) is an executive agency with the role of managing the national forest estate. Dornoch Forest District is one of 14 districts, with delegated responsibility for management of the national forest estate in Caithness, Sutherland, and parts of Easter Ross.

This Plan describes how the District will deliver its part of the Scottish Forestry Strategy (SFS 2006), which is the over-arching forestry policy of the Scottish Executive.

1.2 Scottish Forestry Strategy Vision for 2025 and beyond

The SFS 2006 sets out a vision of where we would like forestry to be in 2025 and beyond, and defines outcomes that we will aim to achieve in support of the vision. The over-arching principles for the SFS 2006 are sustainability and social inclusion. Scottish forestry must contribute positively to sustainable development, and meet internationally agreed standards of sustainable forest management. Those standards are set out in the UK Forestry Standard.

The vision for 2025 and beyond is that Scotland's trees, woodlands and forests are a central part of our culture, environment and economy. People are benefiting widely from them, actively engaging with and looking after the resource for the use and enjoyment of generation to come.

The outcomes that we are aiming to achieve are:

- improved health and well-being of people and their communities;
- competitive and innovative businesses contributing to the growth of the Scottish economy;
- a high quality, robust and adaptable environment.

The emphasis put on each of these outcomes will vary across the District and over time. It will be essential for the District to maintain an up-to-date knowledge of priorities for resource allocation and this will require meaningful engagement across the range of stakeholders. The local Forestry Forum will play an increasingly important role in this respect.

1.3 Sustainable forest management

Sustainable forest management is regarded as a key component of sustainable development and recognises the need to link the social, economic and environmental values of forestry, based on good evidence and through effective engagement with people. At its simplest, it means making sure that today's woodlands are still here, with the same or better benefits for future generations.

Since devolution in 1999, a wide range of policy and strategy documents have been produced that impact on Scotland. Forestry's role is now very broad and can contribute to issues as diverse as sustainable development; rural development; community development; tourism; health; education and lifelong learning; renewable energy; planning; natural heritage; landscape; water; access; and transport.

Scottish forestry must also help to combat social exclusion by promoting opportunities for people to participate in forestry, helping to tackle barriers to inclusion, helping young people and children to get the best possible start in life, and helping to strengthen communities and regenerate excluded communities.

The general principles of Scotland's needs:

- People should not be disadvantaged by who they are or where they live ('social justice');
- People should not have to live in degraded surroundings with a poor quality of life ('environmental justice');
- Everyone should have the same opportunity to enjoy a good quality of life and access to appropriate services ('closing the opportunity gap' and 'social inclusion').

1.4 Forest policy context

This Plan sets the framework for forest management in the District for 2007 - 2017, based on the vision and outcomes of the SFS 2006. The overall aim of the Plan is to ensure an effective link between international, national (Corporate), regional (indicative forestry strategies, IFS) and local legal requirements, policies and objectives.

It provides a mechanism for addressing large-scale issues such as species choice or thinning policy that operate at a different scale to the requirements of more specific or localised forest-based plans. It also forms the basis for setting an appropriate balance between the multiple aims and objectives in individual forest design plans.

In the District it is our aim to:

- Ensure that trees, woods and forests have a key role in sustaining a vibrant local economy, enriching the natural environment and making the area a better place for people to live and work in and to visit;
- Enhance the environmental, financial and social value of the woodlands through positive, sustainable management;
- Manage all land and woods in accordance with the FES corporate plan via approved forest design plans that meet the requirements of the UK Forestry Standard, UK Woodland Assurance Scheme and relevant FCS guidelines.

Section 2: Description of the District

2.1 Introduction

Dornoch Forest District lies in the northern-most section of the Scottish mainland, north of a line from the town of Evanton on the east coast to Ullapool in the west. This area includes the counties of Sutherland, Caithness and the Ardross area of Easter Ross.

Except for some of the older forests in the Ardross area and parts of Borgie Forest in North Sutherland, most the woodland in the District landholding is relative young and was planted during the 1960s, 70s and 80s. These forests include significant areas of even-aged lodgepole pine and Sitka spruce planted on deep peats and blanket bog during the controversial Flow Country era of the 1980s (see p10). Elsewhere, crops are more diverse with a more varied age structure and a wider range of species choice.

2.2 Forest resource

2.2.1 Extent and distribution

In total, the District manages a land area of 62,000ha of which 43,000ha (70%) has woodland cover. The remainder is generally open hill ground, tenanted grazing land or land that is unsuitable for planting. The main concentrations of forests are in Caithness, Easter Ross and east and central Sutherland. Except for the Benmore blocks (6,000ha) only a small percentage of the land holding is in west Sutherland.

2.2.2 Types of forest and tree species

Almost all the forests in the District are plantations, most of which are still relatively young. On the poorer, less fertile sites in the centre and north of the District, extensive use has been made of nutritional species mixtures, such as Sitka spruce/lodgepole pine. Given the climatic and soil conditions that prevail in these areas, thinning is not a practical option.

Further south, both fertility and climatic condition improve allowing a wider range of species choice and silvicultural systems to be employed. Thinning and continuous cover forestry (where the next generation of trees regenerates under the canopy of the existing trees) are more widely practised in these parts of the District.

Lodgepole pine is the most widespread species in the District, covering 53% of the total woodland area. Much of this is planted in silvicultural self-thinning mixtures along with Sitka spruce. Due to poor choice of provenance at the time of planting, the District has over 3,000ha of poor-quality lodgepole pine crops that need to be cleared and replaced with better-adapted species or mixtures capable of producing higher quality timber. A large programme of lodgepole pine clearance is being undertaken with the aim of harvesting these crops prior to the onset of serious windthrow, after which it becomes difficult or impossible to economically harvest and market the timber.

Other major species represented in the District include Sitka spruce (23%), Scots pine (16%), larch (4%), Norway spruce (<1%), other conifers (3%) and broadleaves (2%).

2.2.3 Age structure

The majority of forests within the District are still relatively young (see Table 1).

Table 1 Age structure breakdown

Age	Name	% of area
0-10	Young	18
11-20	Establishment	30
21-40	Thicket	41
41-60	Mature	10
60+	Old	1

2.2.4 Economic contribution

The District employs 15 management staff and 25 forest craftpersons and wildlife rangers. A wide range of forest operations, including all the harvesting work, is carried out by contractors. Although numbers will vary seasonally, around 60 contractors may be working in the District at any one time.

The current annual programme for timber harvesting equates to some 150,000m³. This is set to rise over the next 10 years to 212,000 m³. Over half the total production will be from pines, principally lodgepole pine. Future harvesting work will continue to focus on the removal of poor quality lodgepole pine crops, with the aim of supplying newly emerging local woodfuel markets.

The forests also provide a large resource for both informal recreation and organised events. These help to bring people to the area (e.g. the Snowman Rally) and encourage local people to get outdoors (e.g. mountain biking, local orienteering events). These visits generate expenditure in local communities and help sustain local jobs.

2.3 Natural environment

2.3.1 Climate

Generally, the District has a warm and wet maritime climate with an east-west incline in rainfall. Rainfall varies from around 700mm/yr at Dornoch on the east coast, to over 2,000mm/yr on the higher ground in the west.

The east coast has a marginally more continental climate than the west, with drier weather, sunnier summers and colder winters. The prevailing winds are from the west and southwest.

Climate related issues that influence forest management and planning include:

- **Silviculture:** Climate is a factor in determining which type of tree will grow best on a particular site, and which silvicultural system is most appropriate.
- **Harvesting:** Windiness determines the likelihood of wind damage in plantations and can determine at what age upland plantations are felled.

2.3.2 Water

Salmon fishing is an important economic activity in the North Highlands, and maintaining water quality is an important issue in the District. All major river systems have important salmon interests, with many now also having conservation designations.

Most the watercourses in the southern half of the District flow into the River Oykel/Kyle of Sutherland catchment. This flows from Assynt in the west through to the Dornoch Firth on the east coast. The system includes the Shin catchment and its associated hydroelectric schemes.

The northern half of the District also contains nationally important salmon rivers (i.e. rivers Borgie, Naver, Hallerdale, Helmsdale and Thurso) many of which either border, or flow through the national forest estate. Most these rivers flow south to north.

The District also contains numerous hill lochs, many of which are used for trout fishing. Black and red-throated divers nest on many of these lochs.

Water related issues that influence forest management and planning include:

- **Protection of water quality:** e.g. through strict adherence to FCS forest and water guidelines;
- **Water supply:** many rural properties draw domestic water supplies from forested catchments.

2.3.3 Geology and landform

Landform varies markedly across the District. In the north of Sutherland and Caithness, the landscape is dominated by wide expanses of sweeping moorland across flat or gently undulating ground. To the south the landform is more complex, with rolling hills interspersed by valleys with variable steeper slopes. The underlying geology of this expansive area incorporates moine schists and Lewisian gneiss substrates cut through by igneous granite intrusions. Old red sandstone predominates in south-east Sutherland and eastern Caithness.

The solid geology is overlain in most areas by glacial deposit, i.e. a mix of gravels and moraines. The geology of an area can have a strong influence on the fertility of the soils.

Geology-related issues that influence forest management and planning include:

- **Geological features:** Safeguarding designated geological outcrops/features, e.g. Strathrory meltwater channels, limestone pavement at Benmore, glacial eskers at Camore, coastal sand dune systems at Morrich More;
- **Silviculture:** Underlying rock type can influence the choice of tree species and silvicultural system;
- **Forest roads:** the quality of forest roads is greatly influenced by the material used in construction. Wherever possible, locally-won gravels and moraines are used to form the sub-base of forest roads, but sources of hard-wearing rock that can be quarried to create durable, long-lasting running surfaces are also required.

2.3.4 Soils

All the major Scottish soil types are represented in the District (see Table 2).

At lower altitudes, soils are more complex and include peats, peaty gleys, ironpans and podzols. Only small areas of brown earth soils are present. On the higher ground, peat soils of variable depth predominate. To the north, soils are principally deep unflushed peats supporting blanket bog habitats.

Table 2 Main forest soils

Soil	Characteristics	Occurrence
Brown earths	Very fertile. Dry	Lowlands, lower slopes in highlands
Podzols and ironpans	Medium - low fertility Moderate moisture - dry	Mid slopes and hill tops
Gleys	Medium - very fertile. Wet	Beside watercourses and in flushes
Peats	Medium - low fertility. Wet	Hollows and flatter ground in uplands

The Flow Country of Caithness and Sutherland contains a significant proportion of the blanket bog habitat found in Europe. The area is unique and of global importance. Of particular interest are the associated plants (e.g. sundews, bog cotton, cloudberry), insects (e.g. dragonflies and jewel beetles) and birds (e.g. greenshank, dunlin and divers) that depend on these peatland areas.

Unusual soils also occur such as sands (Morrich More) and calcareous soils (limestone in Benmore and Ledmore). In most forests, the soil types vary in complex patterns.

Soil-related issues that influence forest management and planning include:

- **Protection of soils:** Forest practices are carefully planned to minimise damage to soils, e.g. by erosion or compaction (see FCS forest soil conservation guidelines);
- **Silviculture:** Soil type determines which tree species grow best, which cultivation techniques are appropriate and whether or not fertilisers are required. They are also an important factor in determining wind damage to plantations (trees uproot more easily on wet soils);
- **Harvesting:** Soil type influences the choice of harvesting machinery and timing of operations.

2.3.5 Landscape setting

Landscape and scenery are defining factors in the District. Unique hill walking and wildlife-watching opportunities underpin much of the tourist industry in the area.

In the south-east of the District, the Dornoch Firth national scenic area (NSA) incorporates forest areas at Camore, Ardchronie, Mid Fearn, Dounie and Morrich More. In the west, the

Assynt-Coigach NSA includes a section of Ledmore forest and adjoins the large forest area at Benmore.

The District landscape is diverse, but for planning and management purposes has previously been divided into three zones:

- **The Peatlands** - cover 19,800ha and include the forests of north Sutherland and Caithness, in the area known as the Flow Country. The landscape character is dominated by sweeping moorland and wide open space. Most the forests are still relatively young. Opportunities will be taken during restructuring to protect and restore important peatland habitats;
- **Moorland slopes and hills** - cover 16,250ha and include the forests on higher ground and peat soils in the centre of the District. The landform is more variable, consisting largely of rolling hills, but with steeper, more mountainous slopes in places. Sweeping moorland and wide open space are also important characteristics. Timber production is, and will remain, an important objective;
- **Kyles, straths and coasts** - cover 24,050ha and contain a range of habitats, including coastal dunes, lowland straths and steeper hill slopes with relatively fertile, well-drained soils. The landscape is diverse, with a mixed pattern of valleys and hills. A number of main roads pass through the area and the forests form a backdrop to the wider landscape. Public use of the forests is highest in these areas.

Trees and forests are very important features in the general landscape. The main landscape-related issues that influence forest management and planning are:

- **Forest design:** The good landscape design of forests, especially in designated areas and other visually sensitive sites (see FCS landscape guidelines);
- **Interpretation:** Helping visitors to appreciate and understand wooded landscapes.

2.3.6 Biodiversity

The diverse range of environments that exists across the area and in the District's woodland has resulted in high levels of biodiversity. A large number of individual species are present that are currently the subject of biodiversity species action plans (SAPs), including significant numbers of capercaillie, black grouse, otter and Scottish crossbill, and are the subject of targeted management.

There are 25 sites of special scientific interest (SSSIs) on or adjacent to the national forest estate (see Table 3). Many are components of the Caithness and Sutherland peatlands candidate special area of conservation (cSAC), special protection area (SPA) and Ramsar site designations that cover the Flow Country area. This area has recently been proposed for UNESCO world heritage status.

Table 3. Overview of conservation designations in the District. (SSSI = site of special scientific interest, SAC = special area of conservation, SPA = special protection area, pSAC = proposed special area of conservation, BAP = biodiversity action plan)

Habitat/species (identified in BAP)	Examples	Conservation designations
Caledonian pine forest	Einig native pinewood	Caledonian Forest Reserve
Wetland birch/alder woodland	Linside, Kyle of Sutherland marshes	SSSI, SAC

Upland birchwood	Coill a' Pluill	
Species-rich grassland	Kinrive, Strathrory	SSSI, SPA
Blanket bogs/peatlands	West Borgie, Halsary, Gruidie peatland, etc.	SSSI, SPA, Ramsar
Upland base-rich vegetation	Loch Urigill	SSSI, SPA
Coastal habitat	Morrish More, Camore Wood	SSSI, Ramsar
Black grouse	Dalchork, Achormlarie, Balblair Woods	
Capercaillie	Morangie, Inchindown	SPA
Hen harrier	Achormlarie	pSPA
Freshwater pearl mussels, Atlantic salmon, otter	Rivers Borgie, Naver, Oykel and Evelix	SSSI, pSAC
Black-throated diver	Lochs Craggie and Beanifach	SSSI, pSPA

Conservation is implemented using a range of plans for special sites and by following good conservation in the forest in general. Plans include SSSI management plans, habitat action plans (HAPs), species action plans (SAPs) and local biodiversity action plans (LBAPs). Conservation management often involves partnership working with other agencies and owners.

The main conservation-related issues that influence forest management and planning include:

- **Designated sites:** Protection and enhancement of conservation value;
- **Locally important sites:** Identifying areas of forest of high conservation value and instituting proper management;
- **Ancient woodlands:** Restoration and management of ancient (native) woodland;
- **Deer management:** Monitor and control deer populations to ensure biodiversity interests are not adversely effected by grazing pressures.

2.4 Cultural environment

2.4.1 Historical context

Historical factors that have helped shaped the District include:

- **Early deforestation:** The far north of Scotland has a long history of human habitation. There is much evidence of Iron Age life in the District, with fine examples of brochs, round houses and hill forts. Early settlers began the process of deforestation by cutting down the native forests to make way for agriculture. Climate change (approximately 4,000 years ago) further accelerated this process. With the development of a colder and wetter climate, blanket bog formation began across much of the north and west of the area. These conditions did not favour tree growth with the result that much of the natural tree cover present at the time died out.
- **Highland Clearances:** In the early 1800s, many tenant farmers were forcibly evicted by their landlords from the better agricultural land along the straths and glens to make way for large-scale sheep farming enterprises. The displaced tenants and their families were forced to move to poorer land along the west, east and north coasts of Sutherland, where they eked out a living from fishing and subsistence farming. The geographical spread of the population of the District is still centred on these locations. The landscape is still littered with the remnants of these farms and townships. A well-known and well-preserved example of a clearance village exists in Rosal Forest, in north Sutherland;
- **Flow Country debate:** UK government forestry policy during the 1960s, 70s and 80s offered tax incentives to private investors to encourage forestry expansion. This resulted

in the development of large-scale private sector planting schemes that used predominantly exotic conifer species, such as Sitka spruce and lodgepole pine. Much of this planting took place on cheap land (often deep peat) that was, with hindsight, ill-suited to growing trees. With many of these schemes centred on the controversial Flow Country area of north Sutherland and Caithness, the area and the policy became the focus of a fierce debate during the late 1980s. This eventually led to a change of government policy, resulting in tax incentives for forestry being withdrawn. Many of the remaining, untouched areas of blanket bog are now protected and a programme to identify and restore areas of key peatland habitat has recently been initiated.

These, along with other factors have resulted in the development of a mixed and varied rural economy that includes crofting, farming, forestry, fishing and, ever more importantly, tourism.

2.4.2 Heritage interest

The Forest District is littered with evidence of historic settlements and past land uses from Neolithic times through the present day.

- There are 93 scheduled ancient monuments (SAMs) in the District. These vary from Neolithic cairns and hut circles to the remains of 19th century clearance villages. Each of these sites has a management plan agreed with Historic Scotland (HS). Many of these sites are of national significance, e.g. the Highland clearance village sites at Rosal and Truderscaig in Strathnaver;
- There are also 1,222 recorded unscheduled ancient monuments (UAMs), all of which are protected during forest operations. These range from parish boundary marker stones to Second World War defences;
- The District also contains one of the most northerly remnants of native pinewood in Scotland at Glen Einig. Other important native woodland areas include the birchwood at Coill a Phuill, near the north coast at Borgie.

Heritage-related issues that influence forest management and planning include:

- **Protection of ancient monuments:** Sites are protected and any new sites are reported to HS and local authority archaeologists to determine their historical significance. Management requirements for the site are identified following advice. This process has included the scheduling of some of these new sites in recent years;
- **Ancient/native woodland:** These are now being actively protected and restored.

2.4.3 Pattern of settlement

Populations in the North Highlands are concentrated in the south and north-east, mainly in coastal settlements from Invergordon in Ross-shire through to Thurso in Caithness. Focal points in the District include Tain in Ross-shire, Dornoch and Lairg in Sutherland, and Thurso and Wick in Caithness. Numerous other small communities lie close to forest areas.

Outwith the coastal strip population densities are generally low, with areas of central and northern Sutherland being amongst the lowest in Western Europe.

Pattern of settlement issues that relate to forest management and planning include:

- **Forest planning:** Aspects of forest planning need to be integrated with wider planning issues using local authority plans (e.g. local plans);

- **Consultation and information:** Distribution has to reflect the types of neighbouring communities and/or complexity of user groups.

2.4.4 Peoples relationship with the forests

Community involvement has become a major issue in the Forest District in recent years, leading to the formation of both formal and informal partnerships with various community groups. The different groups have a range of objectives spanning broad spectrum management agreements focused on rural development, e.g. North Sutherland Community Forest Trust, to informal agreements with organisations such as the Rosehall Community Action Group, where FES has assisted in providing footpaths and trails in the woods adjacent to the village.

Recreational use of the forests is still a relatively new development in the District. Many local people have links with the forests and FCS, but this is usually because either they or a member of their family has worked for FCS.

The provision of recreational facilities is now increasingly recognised as having economic benefits for communities, both in terms of attracting visitors/tourists and enhancing the amenity of the area for local people. This has resulted in an upsurge in interest, with numerous new facilities having been constructed in recent year largely funded by community partnerships.

The main recreational issues that influence forest management and planning are:

- **Provision of recreational facilities:** The national forest estate forms a key part of the recreation provision for both locals and visitors to the North Highlands. In total, the District manages 14 way-marked forest walks, four cycle routes, two permanent orienteering trails and a forest-based fitness trail. Two purpose-built mountain biking facilities were opened in spring 2007. Other forest-based recreation includes horse-riding, fishing and dog-sled training, plus a range specialist events;
- **Forest design:** Identifying areas of forest of high recreation value and instituting appropriate management;
- **Management operations:** Carrying out forest operations in ways that impede recreation as little as possible, while maintaining safety;
- **Partnership working:** Contributing to projects with other agencies/owners to improve recreational provision.

Partnership projects in which the District is involved include:

- Scottish Natural Heritage (SNH)/Royal Society for the Protection of Birds (RSPB) - construction of peatland interpretation trail at Forsinain;
- Kyle of Sutherland Initiative - construction of new mountain bike trails at Balblair and Carbisdale woods;
- Rogart Action Group - construction of new path network complete with interpretation;
- South-East Caithness Development Group - proposed construction of a community windfarm;
- Rumster Outdoor Centre Group - redevelopment of an outdoor education centre in Rumster Forest;
- North Scotland Community Forest Trust - construction of log building, including an office and meeting room, to provide NSCFT with permanent base and to provide an additional base for FES and the local Highland Council countryside ranger.

Section 3: Evaluation of achievements (2000 – 2005) under previous Strategic Plan

The previous Strategic Plan was initiated in 1999 and published in 2000. It included a wide range of local targets set against national priorities that had been identified in the original Scottish Forestry Strategy, published in 2000. This section lists these targets and evaluates the progress made towards achieving them during the life of the previous plan.

SFS Priority for Action 1: To maximise the value of the wood resource			
Target description and planned achievement date	Target achieved (yes/no/partial)?	Comments	Should this target be updated and carried forward to new District Strategic Plan?
Improve the accuracy of the production forecast and develop a better understanding of the long-term level of sustainable timber production.	Yes	<ul style="list-style-type: none"> The data used to generate the production forecasts has been subject to continuous review and improvement. This data included a review of non-forecastable areas, yield model applications, ground truthing from aerial photography and the ongoing programme of tactical survey work. 	Yes, part of timber quality targets.
Accurately identify those sites where thinning can be carried out during the present or subsequent rotation and prepare stand prescriptions for each thinning coupe.	Partial	<ul style="list-style-type: none"> Considerable effort has been made to develop a robust GIS-based thinning plan. The thinning coupe layer that has been developed as part of this system now forms the basis of the thinning production forecast. This in turn is used to identify and build up annual thinning programmes. A pre and post-harvesting inventory has been introduced to check that correct volumes are being removed. Stand prescriptions are developed in the development phase. 	Yes, part of timber quality targets.
Investigate the potential for increased use of rail and sea transport, and support their use wherever possible.	Yes	<ul style="list-style-type: none"> A line-side loading facility has been constructed at Kinbrace to allow access to the Strathnaver blocks. 40,000 tonnes have been transported by rail over the last five years, saving 3,200 lorry journeys on the public roads. This has been a partial success in that rail haulage proved to be financially unsustainable and has now stopped. 	Yes, part of environmental quality and climate change targets.

		<ul style="list-style-type: none"> • Central tyre inflation is currently being trialled as an alternative, in conjunction with Highland Council. • Significant volumes of small roundwood have been exported by sea (approximately 5,000 tonnes/yr). Much of this has gone from Scrabster and Wick, with one boat load from Invergordon in 2005. 	
Market as much lodgepole pine (SLP) as possible, subject to forest design plan approval, to facilitate the removal and replacement of as much of these low value crops as soon as possible.	Partial	<ul style="list-style-type: none"> • The early removal of SLP has been targeted in forest design plans to assist in restructuring. It has proved difficult to quantify the area that has been removed with accuracy, but the best estimate for the period 2000-2005 is 1,200 ha. 	Yes, part of timber quality and environmental quality targets.
Review and develop the potential for alternatives to clearfell (ATC) across the District and identify key ATC sites and prepare management prescriptions for those coupes.	Yes	<ul style="list-style-type: none"> • An evaluation of the blocks in the southern half of the District was carried out in 2003 to identify those sites that were the most suitable sites for ATC. • The UKWAS guidance stated that 10% of the District should be under ATC. This has been achieved through the conversion of a large percentage of Mornagie Forest to ATC to help create more suitable habitat for capercaillie. 	Yes, part of timber quality and environmental quality targets.
Focus on supporting initiatives that aim to create local businesses that will utilise low-grade timber.	Yes	<ul style="list-style-type: none"> • The District has been working with Highland Council officials to guarantee long-term timber supplies to the Wick District Heating Scheme. A survey of blocks in the north of the District was carried out in 2004 to identify suitable sources of low-quality timber for the project. The power plant will supply heat and power for 500 houses in the Wick area. • The District has also been working closely with the developers of the proposed Balcas wood pellet and combined heat and power (CHP) plant in Invergordon to 	Yes, part of timber quality and climate change targets.

		<p>identify suitable blocks of lodgepole pine and provide accurate production forecast figures.</p> <ul style="list-style-type: none"> • Support has been given to the North Sutherland Community Forest Trust for their proposal to develop a small-scale sawmill at Forsinain. 	
Review the need for new roads to be constructed to provide access for harvesting and to create new public access points to previously inaccessible forests.	Yes	<ul style="list-style-type: none"> • An average of 7km/yr of forest road has been constructed between 1999-2005. • These roads have primarily been to facilitate harvesting, but have resulted in opening up public access in previously inaccessible areas, e.g. Blingery and Rogart. 	No, operational rather than strategic target.
Implement cost-effective and planned forest road maintenance programmes for grading, vegetation control and roadside drains maintenance.	Yes	<ul style="list-style-type: none"> • An annual programme for this work is drawn up between District and Forest Civil Engineering staff. • The quality of arterial routes has significantly improved over the last five years. Fit-for-purpose solutions have been sought where finance was an issue, e.g. roads in Dalchork have not been surfaced and summer-only extraction is allowed. 	No, operational rather than strategic target.
Successfully establish a sufficient area of Christmas tree plantation each year with the aim of producing 25,000 first -quality lodgepole pine trees for the internal FCS market from 2008 onwards.	Yes	<ul style="list-style-type: none"> • Two new Christmas tree farms have been established at Achairn and Rumster Forests, Caithness. Planting targets for the five years have been met, with an average 10ha/yr being planted. • A further 16ha of land near Rumster has recently been purchased for Christmas trees production. • The District is on course to reach its 2008 targets and is already supplying small quantities of lodgepole pine trees to FCS sales centres in Scotland and England. 	Yes, part of strategic target to diversify income sources.

		<ul style="list-style-type: none"> Annual maintenance operations are carried out as necessary. 	
Meet agreed financial targets for expenditure and maximise income from timber and other sources.		<ul style="list-style-type: none"> Agreed budgetary and business plan financial targets largely met. 	Yes, part of business development target.

SFS Priority for Action 2: To create a diverse forest resource for the future

Target description and planned achievement date	Target achieved (yes/no/partial)?	Comments	Should this target be updated and carried forward to new District Strategic Plan?
Ensure successful establishment and growth of newly planted areas, and carry out protection and maintenance operations to ensure that all P80s mixtures reach canopy closure.	Partial?	<ul style="list-style-type: none"> The District's annual aerial fertiliser programme ran from 1999-2004. Applications were targeted at those areas needing nutrition identified during foliar analysis. The programme was stopped in 2005 partly due to the rising cost of aerial fertiliser applications and partly because of our UKWAS commitment to reduce chemical usage. 	No, operational rather than strategic target.
Review failed or failing areas and prioritise restructuring.	Partial (ongoing)	<ul style="list-style-type: none"> A survey was carried out in Benmore during the design plan process to identify areas suitable for felling to waste. This work was completed in 2005. 	No, not a specific strategic target, now seen as part of forest design planning process.
Improve the success in terms of stocking density of both conifer and broadleaved establishment. Overall target to reach 2,500 stems/ha established conifers on all sites.	Partial?	<ul style="list-style-type: none"> In 2002, the District adopted the use of a fallowing period of three-six years as a method of overcoming pine weevil (hylobius) damage. This has increased the survival rates of trees from about 40% to between 90- 95%. It has also resulted in a significant reduction in the use of chemicals. Fallowing experiments between 1999-2005 were monitored by Forest Research. Broadleaf monitoring has not been so successful. A broadleaf monitoring strategy was developed in 2003 and an 	Yes, 2,500 stems/ha part of timber quality target. Broadleaves/native woodland establishment part of biodiversity target.

		<p>initial survey carried out at Braelangwell. This has not been developed further due to a restriction in staff resource.</p> <ul style="list-style-type: none"> • The District worked with Forest Research in 2003 and 2004 to develop small-scale direct seeding trials. There have been varying levels of success with Scots Pine and broadleaves. No conclusive results have been drawn to date, but the trails show that seeds do not do well on mounds due to a lack of moisture. • In 2005, the District undertook trials with a local nursery using birch seed, sand and fertiliser in measured doses. The initial results of these experiments are positive. • Direct seeding experiments using a forwarder seed gun took place in Caplich in January 2005 with initial mixed results. Forest Research is expected to present their findings on this trial in 2007. 	
<p>Develop the use of ecological site classification (ESC) and national vegetation classification (NVC) where soils data is available to match species choice to site type more closely and extend the soils map coverage.</p>	<p>Partial</p>	<ul style="list-style-type: none"> • ESC is now used when design plans are being drawn up to guide future species choice. The species choice is then reviewed at the re-stock planning stage to ensure that it remains relevant. • High productivity areas have been identified using ESC in Morangie and Dam Wood. • 70% of the District is now covered by soils maps. These are in the process of being digitised for use on the GIS system. • Review of future species choice and provenance. 	<p>Yes, part of timber quality objective</p>

<p>Prepare new forest design plans for younger areas in the Peatlands zone.</p>		<ul style="list-style-type: none"> • Design plans have been completed for most areas including Dyke, Forsinain, Rimsdale, Halsary and Braehour. • Stanshill is to be completed in 2007. • The Stroubster design plan has been delayed due to a wind farm application, but indicative plan to be completed in 2007. 	<p>No. District will have 100% forest design plan coverage from 2007 that will be maintained with on-going reviews.</p>
<p>Rationalise forest design units to link smaller geographic blocks into larger units and to seek more holistic approach to forest design plans in association with neighbours.</p>		<ul style="list-style-type: none"> • The District achieved 91% of design plan coverage by the end of 2005. • The original 32 design units based on block size and location have now been rationalised and the District now has five design areas. These provide easily identifiable areas on which consultation with stakeholders can take place. • A consultation strategy was developed in 2003. Previous design plan consultation meetings had only proved moderately successful and were not producing meaningful results for local communities or for the District. The new strategy, concentrating on asking people how they would like their local forests managed, has proved very successful and will be revised in 2007 to link in with the new design units. • Two leaflets have been produced in conjunction with the new consultation strategy, detailing FCS objectives and giving information about the design plan process. These have been used very successful in a number of community consultation exercises. 	<p>No, not seen as a specific strategic objective although landscape-scale planning is becoming an increasingly important issue.</p>

<p>Ensure that forest operations carried out under approved forest design plans comply with all relevant standards and guidelines.</p>		<ul style="list-style-type: none"> • Successful UKWAS audits. • Compliance audits. • Monitoring forest design plan progress. 	<p>Yes, forms part of environmental quality objective.</p>
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SFS Priority for Action 3: To make a positive contribution to the environment

Target description and planned achievement date	Target achieved (yes/no/partial)?	Comments	Should this target be updated and carried forward to new District Strategic Plan?
<p>Review the current use of pesticides, herbicides and fertilisers and instigate reductions in usage rates wherever practical.</p>	<p>Yes</p>	<ul style="list-style-type: none"> • The District chemical reduction strategy was produced in 2003. • The District now implements a three to six year fallow period that research has shown to be highly effective in reducing the weevil population. The fallowing of sites before replanting has been a major success in reducing chemical usage. An average 150ha of new planting were being sprayed twice a year. This has now been reduced to around 15ha. This has resulted in more top-up weeding being required, but the overall chemical usage has significantly reduced. • All chemical usage is recorded on the chemical database. • Use of Marshal Suscon sachets were trialled in the District in 2004 and 2005 with the aim of better targeting the use of chemicals. Unfortunately, these experiments were not successful as there were problems with the product. • Organic fertiliser (urea) usage now confined to low rainfall sites with mineral soils. 	<p>Yes, part of environmental quality objective.</p>

<p>Bring deer densities closer to four deer/100ha in areas of high conservation value and six deer/100ha in areas of productive forest.</p>	<p>Yes</p>	<ul style="list-style-type: none"> • Of the District's 28 deer management units (DMUs), 23 units have fewer than 10 deer/100ha and five have fewer than 13 deer/100ha. These figures are not based on forest habitat type. • DMUs where the population is greater than 10/100ha have external influencing factors affecting the deer population e.g. at Kildermorie, the DMU is only fenced on three sides and a cross-boundary shooting agreement has been put in place to control the population. 	<p>Yes, now part of biodiversity objective.</p>
<p>Aim to achieve red deer cull 60/40 in favour of males. Other culls to be 60/40 in favour of females.</p>	<p>No</p>	<ul style="list-style-type: none"> • Red and sika deer culls have been in favour of males as they can be shot all year round. • Roe deer cull has been 50/ 50 split between male and females. 	<p>No, not a strategic target.</p>
<p>Ensure that current approval for management plans for all sites of special scientific interest (SSSIs) and scheduled ancient monuments (SAMs) is maintained and that new plans are prepared for newly designated sites.</p>	<p>Yes</p>	<ul style="list-style-type: none"> • All SSSI and SAM plan revisions have been carried out when required and all approvals are up to date. • The timing of all SSSI and SAM plan revisions is to be aligned with the new design units in 2007. This will be agreed with SNH and Historic Scotland (HS). 	<p>Yes, part of environmental quality and biodiversity targets.</p>
<p>Achieve restoration of 10% of plantations of ancient woodland sites (PAWS) by 2015. Sites will be prioritised according to FES North Scotland PAWS strategy (total 969ha of designated PAWS).</p>	<p>Ongoing</p>	<ul style="list-style-type: none"> • Work ongoing. 750ha in Morangie is now being managed for PAWS restoration (native pinewood). All other PAWS site now surveyed and restoration work prioritised 	<p>Yes, biodiversity target.</p>

Prioritise native woodland sites for survey and survey all known sites by 2005. All sites will have management plans and monitoring protocols prepared following survey.	Yes	<ul style="list-style-type: none"> • 475ha of native woodland was surveyed in 2000. • The District has two native woodland management plans, at Coill a Phuill in Borgie Forest and Einig forest. 	Yes, biodiversity target.
Review the management plan for Glen Einig, incorporating increased native pinewood expansion zones.	Yes	<ul style="list-style-type: none"> • This plan was updated in 2001 resulting in a doubling of native pinewood in the forest (275ha). Second review carried out in 2006 as part of forest design planning process. 	Yes, biodiversity target.
Protect key habitats and identify and target positive opportunities for expanding such habitats through habitat action plans (HAPs).	Yes	<ul style="list-style-type: none"> • The capercaillie HAP was produced in 1999 in partnership with RSPB as part of the EU LIFE bid for habitat improvement work in Mornagie forest. This is due to be reviewed in 2009. • The Peatlands management plan was produced in 2000 in partnership with the RSPB, SNH and Plantlife as part of the EU LIFE bid for the restoration of blanket bogs in the Flow Country. • No HAP for the Morrich More has been produced, but work for sand dune restoration is included in the 2002 forest design plan. 	Yes, biodiversity target.
Protect key species and identify and target positive opportunities for enhancing their numbers and range adhering to the relevant species action plans (SAPs).	Yes	<ul style="list-style-type: none"> • The black grouse SAP was produced in 2000 in partnership with SNH and the RSPB. This covers key black grouse areas including Achormlarie, Carbisdale and Dalchork. Habitat improvement work is ongoing in these areas, e.g. swiping. • The capercaillie SAP was produced in 1999 as part of the EU LIFE bid as detailed above. 	Yes, biodiversity target.

SFS Priority for Action 4: To create opportunities for more people to enjoy trees, woods and forests

Target description and planned achievement date	Target achieved (yes/no/partial)?	Comments	Should this target be updated and carried forward to new District Strategic Plan?
<p>Maintain the standard of all formal recreation facilities through regular inspection and maintenance.</p>	<p>Yes</p>	<ul style="list-style-type: none"> • All recreation facilities are inspected once a month and maintenance carried out as necessary. • All recreation facilities have site-specific risk assessments that are reviewed annually. • The District underwent a recreation audit in 2005 by Jim Burns. • New facilities created – Rosehall, Aldie, Gunns Wood, Skelbo. 	<p>Yes, part of access and health target.</p>
<p>Seek ways of making local people and tourists more aware of recreation opportunities on the national forest estate and develop methods of improving information transfer, particularly on open access.</p>	<p>Yes</p>	<ul style="list-style-type: none"> • The Forest of the Far North leaflet was updated in 2005. • A series of articles on the forest walks appeared in the Northern Times in 2004 aimed at advising locals of the recreational resources available. These were very well received locally. • Series of draft open access maps has been produced and distribution boxes located at the entrance to key forests. These maps will need to be revised in 2007. • A trial project with two NHS surgeries was run in 2005 (in Caithness and Dornoch) to distribute forest walks leaflets 	<p>Yes, part of business development and access and health targets.</p>

		<p>and pedometers to patients who have been prescribed exercise by their doctor.</p> <ul style="list-style-type: none"> • Side panels with a District map showing all the FCS recreational facilities have been located at each forest walk. The aim of this is to show visitors the extent of the District and the facilities available. • The FCS website is kept up to date with forest walks and current event information. 	
Draft new District recreation plan.	Yes	<ul style="list-style-type: none"> • A recreation plan was produced in 2000 and reviewed in 2004. This plan is reviewed annually to reflect FCS recreation policy, e.g. the growth of mountain biking. 	Yes, part of access and health target.
Seek opportunities to work with other local groups and associations.	Partial?	<ul style="list-style-type: none"> • The District works with the Highland Council ranger service to deliver environmental education events. • Annual outdoor Halloween events were held between 2003 and 2005. These have been particularly successful in raising the profile of FCS in the area and encouraging people into the woods, particularly those who would not usually choose to visit a wood. 	Yes, part of community development target.

SFS Priority for Action 5: To help communities benefit from woods and forests

Target description and planned achievement date	Target achieved (yes/no/partial)?	Comments	Should this target be updated and carried forward to new District Strategic Plan?
<p>Facilitate greater community involvement in the national forest estate in Caithness, Sutherland and Easter Ross to broaden the scope of community understanding of forests and FCS activities.</p>	<p>Yes</p>	<ul style="list-style-type: none"> • The District has worked with Rosehall and District Action group to develop a network of trails, create a car park and construct a log cabin. This work was completed in 2005 and has been a success for both the District and the Rosehall community. • The District has been working with the Kyle of Sutherland Initiative to construct mountain bike trails in Carbisdale and Balblair Woods. Information panels on the low-level walks in the KOSI area have also been produced. • The District is in discussions with Rogart For The Future to construct a path network in Rogart Forest. • The District sits on the Rumster Outdoor Centre Group, whose aim is to regenerate the centre as a venue for outdoor activities in the North. • The 2003 community consultation strategy has helped to achieve this target. • Annual Christmas tree competition is run for all schools in the District. This is very successful and raises the FCS profile in the area. 	<p>Yes, part of community development target.</p>

Work with key community groups to develop effective partnership agreements.	Yes	<ul style="list-style-type: none"> A management agreement for the north Sutherland forest blocks (Syre, Rimsdale, Borgie etc) was signed with the North Sutherland Community Forest Trust in 2005. 	Yes, part of community development target.
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6 Maintain and efficient and effective organisation

Target description and planned achievement date	Target achieved (yes/no/partial)?	Comments	Should this target be updated and carried forward to new District Strategic Plan?
Demonstrate best practice in the management of deer populations and the handling of venison.	Yes	<ul style="list-style-type: none"> • All District wildlife ranger staff and contractors have attained deer management qualifications (DMQ) levels 1 and 2. • All wildlife ranger staff hold the Deer Commission Scotland 'fit and competent' status. • A five-year firearms review for all wildlife rangers has been completed in 2006 to collate a profile on each ranger that includes individual training records, personal annual cull and skills test results. • The four larders in the District (Tarlogie, Lairg, Lybster and Bettyhill) are to the Venison Quality Assurance Scheme standard (achieved in July 2002). 	Yes – part of biodiversity target
Review the potential for increasing income from leases and other wayleave agreements associated with sporting, renewable energy and telecommunications etc	Yes	<ul style="list-style-type: none"> • 34% of the District area is currently under sporting lease, generating income of £12,000/yr. • All shooting leases have been reviewed; all new shooting leases have agreed management plans and market value rent (rather than peppercorn rent). • The District collects annual rent on four mobile phone masts. • District leases a marble quarry site at Ledmore. 	Yes – part of business development target

		<ul style="list-style-type: none"> • An annual lease is held by oilfield services company, Rockwater for the oil pipe manufacturing facilities that pass through Stanstill forest in Caithness. • nine option agreements have been signed to allow companies to investigate the potential for windfarms across the District. Three potential windfarms in the planning system 	
Dispose of all surplus land and buildings to maximise income or other benefits to the estate.	Partial	<ul style="list-style-type: none"> • The Scotsburn excambion with Balnagowan estate was completed in 2001. • The potential disposal at the Crask, north of Dalchork has not been taken forward. This land is designated as peatland SSSI. It is likely that the District will retain this land for biodiversity reasons. • The Salachy block, near Lairg was sold to Salachy estate in 2005. • The Kildermorie disposal is ongoing due to legal and boundary issues. 	Yes, part of business development target.
Improve and maintain the build infrastructure of the District.	Yes	<ul style="list-style-type: none"> • Dornoch office log store constructed on 2003. • Construction of the Borgie Forest log building started in 2004 and is ongoing. This building will provide a mess room and workshop for the squad, office space for the Forest Works supervisor and a meeting room. • Minor upgrade work was carried out on Ardross store in 2005. 	No, not a strategic target.

4. Identification and analysis of issues

The issues identified below are arranged under the seven key national themes of the Scottish Forestry Strategy (SFS), with analysis and evaluation of their local context. The SFS is broken into three outcomes, 12 headline objectives and 69 detailed objectives. To reflect the strategic nature of this Plan, only the most relevant SFS objective and main local issues have been included.

We seek to identify key things that we can influence. This requires an analysis of our operating environment, with consideration of problems and limiting factors. This analysis will sometimes be summarised in the Plan, e.g. in considering our operating environment for timber we include mention of the international trade in timber as a limiting factor because this may not be obvious to a lay audience. In contrast, we do not mention the details of silvicultural improvement when identifying thinning as an issue as we feel these will be assumed intuitively, i.e. thinning improves crops.

National theme: 1. Climate change	
Most relevant SFS action	Priority issues for Dornoch Forest District
Species choice	<p>Climate change is a massive and complex international issue, and recent guidance suggests that we need to consider how we respond to evolving research. There is likely to be an impact on our local forests with regard to our future choice of species, e.g. growth rates for Sitka spruce may improve in the north of the District, particularly in parts of Caithness and north Sutherland (Appendix 3), and Scots pine may fair better across central Sutherland and Easter Ross (Appendix 4).</p> <p>Given its wide climatic tolerance, Scots pine is likely to be more heavily utilised in the future. But it is important to maintain or increase species variation as a means of mitigating some of the risks that may be posed by future climate change. Provenance selection in our major species and the need to monitor crops against increased threats posed by pests and disease are likely to become more important issues.</p>
Renewable energy	<p>We are well placed to contribute to the development renewable energy production, as many of our forests are located in exposed upland areas and have good access to grid connections. The District is currently involved in a number of projects, primarily wind, but we are also investigating the potential for hydro schemes. We will continue to make sites available for renewable energy projects, subject to environmental and planning safeguards, and will work positively with developers to help bring these schemes to fruition.</p> <p>The development of an appropriately scaled woodfuel market in the District is also seen as a major priority in terms of its contribution to the production of renewable energy and as a market outlet for some of our poorer quality lodgepole pine crops. Many of these crops are located in remote areas, long distances from existing markets, and local consumption as woodfuel would also bring about a significant reduction in timber miles.</p>
New woodland	<p>Carbon sequestration can be increased by adopting low impact silvicultural systems (continuous cover forestry). Where possible, these systems are being developed in the District leading to a greater use of natural regeneration and longer rotations.</p> <p>There is also potential for acquiring land in certain parts of the District where more fertile, low-carbon soils are more prevalent and where the carbon gains from new woodland would be greatest. Our current land holding also contains large areas of unplanted ground (map, Appendix 5) that includes significant areas of low-grade agricultural land. Changing land use patterns in recent years have resulted in a shift away from marginal agricultural, with the result that some of this land may now be available to establish new native woodlands. These in turn could make a valuable contribution to improving the area's forest habitat networks.</p> <p>Ironically, ongoing deforestation work to restore blanket bog habitat may</p>

also be resulting in increased carbon sequestration. Past practices - areas with deep peat soils were mechanically drained and planted - have resulted in the peat on these sites cracking, drying out and progressively breaking down. This process is releasing atmospheric carbon previously locked up in the peat. Although further research is required to quantify this effect, current thinking suggests that this carbon release is not being fully off set by the carbon that is subsequently locked up by the ensuing tree crop. By opting to remove the trees cover and block drains on certain of these sites, it would appear that we are not only helping to restore an important open ground habitat, but may also be slowing down the rate of carbon release.

National theme: 2. Timber	
Most relevant SFS objectives	Priority issues for Dornoch Forest District
Timber supply	The current production forecasting system is fairly reliable for predicting timber flows from clearfelling, but less accurate for thinning, particularly in areas designated for continuous cover forest management
Timber quality	Many of our older forests in the south of the District have been well thinned and are now producing quality products, but the quality of timber produced in some of our upland forests remains mixed. This is as a result of a number of factors, including poor species and provenance selection (i.e. extensive use of lodgepole pine) and planting being extended on to unsuitable sites. Evidence suggests that current establishment techniques (i.e. the use of nutritional species mixtures and improved ground preparation) will facilitate a significant improvement in the second rotation, allowing the production of much higher quality crops. It is also critical to ensure that the correct species and seed origins are used in re-stocking and natural regeneration systems, and that crops are established at densities that ensure future timber quality.
Timber transport	<p>Given the distance from markets, the costs of the supply chain remain a significant issue. Many factors that influence this are outwith our control, e.g. the high cost of diesel.</p> <p>Protection of the fragile, single track road infrastructure, prevalent across much of the Highlands is also a key issue. The District continues to work closely with the local road authorities to try to ensure road damage and public inconvenience is minimised. The principle mechanism for this is through the Agreed Routes system compiled by the Highland Timber Transport Group.</p> <p>Sea and rail have both been used as alternatives to road transport, and will continue to be considered where appropriate and economically viable.</p>
Timber in construction	The District promotes and supports the innovative use of timber as a building material. A pioneering project was recently undertaken to construct a major office/workshop complex in Borgie Forest, north Sutherland, using log-scribe building techniques. This exemplar project is being used to promote this particular building method and to encourage further use of locally grown timber.
Woodfuel	With only one major wood processor located north of Inverness, the cost of roundwood haulage is a significant issue in the North Highlands. Woodfuel is a potential growth area in helping to tackle climate change and, if developed on the correct scale and in suitable locations, could increase harvesting revenues and bring about local economic benefits. FES is actively supporting two significant woodfuel projects currently being developed in the District.

Hardwood timber	<p>Given the climatic limitation, commercial production of hardwood timber has not so far been seen as being of economic importance in the North Highlands. But the District is, whenever possible, supporting small local mills in the area that utilise small volumes of millable hardwood.</p> <p>Trials aimed at developing silvicultural techniques to produce quality broadleaves are about to be undertaken on several of the more fertile sites in the centre of the District, with a view to bringing about a long-term improvement in the overall quality of our broadleaved woodland.</p>
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National theme: 3. Business development	
Most relevant SFS objectives	Priority issues for Dornoch Forest District
Support for local businesses	<p>The District does not provide direct support to rural businesses, but we do endeavour to consider and provide opportunities that will assist local businesses and the local economy. We can provide business opportunities but, where there is potential for competition, we have to ensure that there is fair and open process for developing these opportunities.</p> <p>Many local businesses derive benefits from visitors using the forests and we work closely with community groups to develop these facilities.</p> <p>The North Highlands continues to be a crofting stronghold and the District is currently in discussion with a number of community groups with the aim of further developing the concept of woodland crofts, principally through the National Forest Land Scheme. This would allow community groups to acquire suitable areas of woodland currently under FES ownership to establish new crofting townships with a principle focus on woodland management.</p> <p>In keeping with FCS policy, the District supports the principle of providing affordable rural housing and has recently identified several suitable sites.</p>
Non-timber sources of income	<p>In addition to timber revenues, the District is attempting to diversify its income base, particularly through involvement in the development of renewable energy projects. Alternative sources of revenue already exist (e.g. Christmas tree production, lease of radio masts, oil pipeline manufacturing site, marble quarry etc.) that continue to provide a significant proportion of the District's income. These are important and help to offset investment in recreation, conservation and heritage.</p>
Portfolio analysis	<p>The existing estate has been analysed against a range of economic and non-market benefits utilising a national scoring system (see Appendix ***). Forests with low scores e.g. Rimsdale and Benmore, will be assessed for re-positioning to either improve their non-market and/or economic performance. If they are suitable candidates, this will be incorporated at the next amendment of the relevant forest plans. If not, they will be considered for sale to realise money for recycling to other key work areas, including new acquisitions.</p>
Tourism	<p>The North Highlands continues to be a popular tourist destination and in places the revenue generated from tourism is a mainstay of the local economy. The main reasons that visitors come are to enjoy the magnificent scenery and to take part in a range of outdoor recreational pursuits. The national forest estate makes up a significant part of the scenery and provides many recreational opportunities. We will continue to work with partners to try to maximise these benefits.</p>

Staff and contractor skills	<p>There is a continuing need to develop staff and contractor skills to meet new challenges and improve performance in current activities.</p> <p>The Modern Apprenticeship scheme will help ensure skilled recruits are available, both as potential future direct employees and as forestry contractors.</p> <p>Offering future contracts that give sufficient continuity of work to allow adequate investment in training will also help to improve the contractor skill base.</p>
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National theme: 4. Community development	
Most relevant SFS objectives	Priority issues for Dornoch Forest District
Education	<p>The education sector's resources dwarf our own and so our role has to focus on facilitating and encouraging the sector to better utilise the national forest estate. Contact between the District and the education sector has declined in recent years and, resources permitting, this is an issue that we need to address urgently, both at primary and secondary school level. Initial efforts should focus on schools located closest to the forests.</p>
Community engagement	<p>Communities are all different and dynamic, and their needs vary enormously. At present, much of our engagement reflects communities' desire to be informed about what is going on in their local forests and to have an opportunity to influence long-term management decisions. There are also communities of interest, e.g. mountain bikers and horse-riders, who may operate over a range of forests. It is important that their views are accommodated as well.</p> <p>Local groups such as the North Sutherland Community Forest Trust and the Rosehall Action Group have been formed in a number of communities where interest has been strongest. In some cases, these groups have been very proactive and have become formally involved in the management of their local forests. Our principle role in these partnerships is to provide a long-term base for the community groups to build from, allowing them to deliver additional benefits that FES would not be able to resource alone.</p>
Partnerships	<p>Despite the District's rural location, access to woodland and open countryside is something that still has to be actively encouraged among the local population. Partnership working with local communities in recent years has enabled a significant expansion of the District's recreation facilities, many of which are now well used by both local people and visiting tourists. The development of closer links between communities and their local FES woodland is being actively encouraged through the forest design plan process and engagement with local/specialist interest groups.</p>
Community ownership and management	<p>Since the advent of the National Forest Land Scheme there has been a number of enquiries for new community facilities and these are all currently being progressed. These range from provisions of a site for the erection of community-owned wind turbines to the acquisition of land to establish woodland crofts. These issues require sensitive handling and a lot of facilitation to help move them forward.</p>

National theme: 5. Access and health	
Most relevant SFS objectives	Priority issues for Dornoch Forest District
Access	<p>FCS has operated a policy of open access for walkers, riders and cyclists for many years, which has now become enshrined in Scottish legislation. We also provide a wide range of opportunities for more specialist activities, e.g. orienteering, car rallies etc that are run through a permissions system.</p> <p>Many forests have recreation facilities (a total of 16 car parks, 12 way-marked walks, four way-marked cycle routes, two mountain bike trails and eight picnic areas) and we also run a full events programme.</p> <p>The distribution of the forests reflects past policies and most remain distant from the larger centres of population such as Alness, Invergordon, Thurso and Wick. As a result of this many of the forests are only accessible by car, making the need for adequate parking essential.</p>
Core path network	<p>Consultation is ongoing over the inclusion of both formal and informal forest paths in the core path network for Caithness, Sutherland and Easter Ross.</p>
Health.	<p>Most of our forests are currently distant from the more urban communities and from areas of the greatest social deprivation where health tends to be poorer. Recently, there has been some engagement with the health authorities to identify opportunities for greater use of the forests in improving health. Walking and cycling remain the two most popular activities in our woodlands. Events that focus on these activities and their associated health benefits are now regularly incorporated in our events programme.</p>
Woodland recreation	<p>Traditional woodland-based activities, such as walking and cycling, are well catered for in the District and, wherever possible, we try to encourage people to make use of the forest in other more interesting and imaginative ways. Specialist activities such as car rallies and mountain biking are accommodated and the District endeavours to run an interesting and diverse events programme each year that will appeal to a wide cross-section of the public. In recent years, this has included a series of highly successful performing arts events that have proved so popular that plans are currently being developed to construct a semi-permanent performance venue in the one of the District's forests. It is envisaged that this will be used for a wide range of activities and events, and will be available to communities and local interest groups as a venue to stage their own events.</p>

National theme: 6. Environmental quality	
Most relevant SFS objectives	Priority issues for Dornoch Forest District
Sustainable management	<p>Our sustainable forest management is based on implementation of a range of important standards and best practice national guidelines (e.g. FCS forest and water guidelines) and legislation (e.g. the Health and Safety Act) in our daily work. Our performance is externally audited against the Forest Stewardship Council (FSC) approved UK Woodland Assurance Scheme (UKWAS) standards. Our FSC certification provides third party confirmation that FCS forests are well-managed. We are firmly committed to retaining the high standards required by UKWAS.</p> <p>Although sustainable forest management of the national forest estate is independently certified, this does not address the issue of sustainability of our other business practices (i.e., building construction, waste management, water and energy use, transport etc.). We are committed, through our involvement in the FCS Greenerways initiative, to critical examination of our current operating procedures and, where reasonably practical, to the promotion and instigation of measures that improve the sustainability of our management practices.</p>
Water quality	<p>Our main issue is water quality emanating from, or downstream of, the forests. This is important for:</p> <ul style="list-style-type: none"> • domestic water supplies (neighbouring properties up to reservoirs, e.g. Loch Beanach); • conservation (e.g. all major river systems in the District are designated as special areas of conservation (SACs) for a range of species, including freshwater pearl mussel, Atlantic salmon and otter); • recreation (e.g. salmon and trout fishing, canoeing).
Landscape quality	<p>Many of the District's forests form key components of the local landscape, often providing important backdrops to major tourist routes (e.g. A9 - Dornoch Firth, A836 - Lairg to Tongue route). Some were established under different priorities and now make a less than positive contribution to the overall landscape quality, e.g. North Dalchork/Benmore/Rogart. In many cases, essential restructuring work to improve their appearance is well under way and significant improvements have already been made. This work will be further enhanced as we move towards the second and third generations of forest design plans associated with these blocks.</p>
Cultural heritage	<p>The district has a rich archaeological heritage that includes 92 scheduled ancient monuments (SAMs), ranging from Neolithic hut circles and Iron Age hill forts and brochs to entire 19th century clearance villages. These sites are all managed under agreed guidance from Historic Scotland. Interpretation is provided at the more significant and popular sites. The District also has more than 1,000 recorded unscheduled ancient monuments (UAMs), many of which that have been identified by local staff as part of the planning process now undertaken in advance of forest</p>

	operations. Both SAMs and UAMs are taken into consideration during the forest design plan process and during forest operations to ensure that both individual features and historic landscapes are properly safeguarded.
Low impact silvicultural systems	Where conditions allow, continuous cover forestry systems will be used to help minimise the impact of harvesting on key landscapes, e.g. Morangie/Achany. Use of this technique will be limited given the restrictive soil and climatic conditions across much of the District.
Designated sites	The District has 22 designated sites of special scientific interest (SSSIs), special protection areas (SPAs), special areas of conservation (SACs) and Ramsar sites) all of which are managed under agreements with Scottish Natural Heritage (SNH). The designations cover a wide range of features, varying from river systems to sand dunes.

National theme: 7. Biodiversity	
Most relevant SFS objectives	Priority issues for Dornoch Forest District
Priority habitats	<p>The District fully recognises the need to protect and to restore priority habitats, such as blanket bogs and coastal dune systems that are identified in national and local biodiversity action plans (UKBAPs and LBAPs). District staff now work closely with partner organisations, such as Forest Research, SNH and the Royal Society for the Protection of Birds (RSPB) to achieve this.</p> <p>A recent, extensive programme of blanket bog restoration work was largely funded under the EU LIFE Peatland project. Research is currently underway to draw up a robust protocol that will enable us to identify and prioritise further sites that would be suitable for blanket bog restoration when funding allows.</p> <p>Longstanding native pinewood restoration work will continue in Glen Einig. Plantations on ancient woodland sites (PAWs) throughout the District have been surveyed and prioritised for restoration.</p>
Priority species	<p>The requirements of a number of priority species in the District (identified in national species action plans, SAPs) are routinely considered as part of the forest planning process. Species include capercaillie, black grouse, red squirrel, pearl-bordered fritillary, juniper, Scottish wood ant and twinflower. Currently, capercaillie and black grouse are our highest priority and we are managing significant areas of woodland containing stronghold populations of both species. Local species action plans have also been produced for both capercaillie and black grouse.</p>
Habitat networks	<p>Much of the national forest estate forms critical elements of large-scale habitat networks, particularly in North Highlands where older, long-established forests are scarce. Habitat networks are thought to be vital to the survival of species that will need to migrate to survive the potential impact of climate change.</p> <p>The network of plantation forests in the North Highlands is still relatively young and in many cases has created essential links between the small-scale, sparse remnants of older woodland. Some forests already make a positive contribution, e.g. Morangie, but others will need to be altered and enhanced to provide critical linkages, e.g. Benmore and Rosal. In other cases, large-scale forests themselves are becoming dominant features of local networks, e.g. Dalchork, Rosal and Benmore.</p> <p>Part of this process will be to increase diversity in the forest, while at the same time protecting and restoring important open habitat, such as bogs and riparian zones.</p> <p>Restructuring these large, even-aged, single species plantations remains a priority and will continue to be implemented through the forest design plan process. Improving species, age and habitat diversity will remain a priority.</p>

Deer management	Control of the deer population remains a major issue in the District, with local staff working hard to help develop and proliferate best practice. Population modelling, development of damage assessment techniques, collaborative working with neighbours and other agencies, and improved hygiene and carcass handling techniques will all continue to be pioneered by the District's deer management team.
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5 Response to the issues, implementation and monitoring

1. Climate change			
Key local issues	Proposed response (including implementation)	Monitoring	Aspiration
Renewable energy	We will support proposals for renewable energy projects on the national forest estate. Where proposals are identified, we will expect selected developers to engage and take account of stakeholder interest. Provided this occurs, and all environmental and planning safeguards are met, we will work positively with developers to try to help bring these schemes to fruition. All proposals will go through the public planning process to ensure a process that is fair and transparent to stakeholders.	KWH of power generated.	All suitable opportunities are identified and where suitable developed.
New woodland	<p>New acquisitions will be actively sought in the lowland parts of the District, where better quality soils prevail. Wherever possible, these will also deliver on other important objectives, e.g. providing increased access opportunities, enhancing local habitat networks etc. At present, support is available to take this acquisition programme forward via funding for carbon sequestration and the FCS woodlands in and around town initiative, WIAT.</p> <p>The District also has significant areas of open land on the forest estate. A proportion of this will have been designated as open ground in design plans or may be under another use, e.g. crofting tenure, but we need to review this holding and assess the potential for planting some of this land to increase carbon sequestration.</p>	Location, area and type of new woodland planted.	Establishment of new woodland capable of delivering a range of benefits, including contribution to habitat links and added resilience to climate change.

<p>Sustainable business management</p>	<p>Sustainable forest management of the national forest estate is independently certified under the UK Woodland Assurance Scheme (UKWAS), but this does not address the sustainability of our other business practices, e.g. building construction, waste management, water and energy use, transport etc.</p> <p>We will critically examine our current practices through our involvement in the FCS Greenerways initiative and, where reasonably practical, promote and instigate measures that improve the sustainability of our operations.</p>	<p>Relocate to new shared office under 'On the Ground' initiative. New office to be designed to comply with the Building Research Establishment's environmental assessment method (BREEAM) 'Excellent' rating.</p> <p>Monitor usage and fuel efficiency of District's vehicle fleet.</p> <p>Monitor energy and water usage in FES buildings in the District.</p> <p>Reduce office waste and increase levels of recycling</p>	<p>Minimise environmental impact of management operations across the District.</p>
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2. Timber			
Key local issues	Proposed response (including implementation)	Monitoring	Aspiration
Production forecasting	We will produce a forecast of timber production and match those predictions (currently at 152km ³ /year) in subsequent marketing plans.	Published production forecast, local thinning spreadsheet and annual sales plan.	A sustained level of production.
Timber quality	<p>We will strive to improve the overall quality of timber crops throughout the District by:</p> <ul style="list-style-type: none"> species choice and selection of correct origins (including improved stock) based on sound silvicultural practice with the aim of producing quality growing stock; establishing crop densities in line with national guidance (outlined in forest management memorandum, FMM4) with pine weevil (<i>Hylobius</i>) control continuing to be managed through the use of extended fallow periods prior to re-stocking; using self-thinning, nutritional species mixtures on sites with low fertility and on sites where thinning will result in crop instability; working to increase the current annual thinning volume of 26km³/year (further detail in District thinning plan) and validating volume and location targets through use of GIS map layers and improved local estimating of programme. Stand prescriptions will be prepared for each thinning coupe. continuing to target south coastal and other 	<p>Stocking density assessments and natural regeneration surveys.</p> <p>Ongoing reduction in annual pesticide usage.</p> <p>Spreadsheet to predict and monitor volume outturn and GIS thinning map layer to show what has been thinned and when.</p> <p>Annual check of total area of south coastal lodgepole pine on District sub compartment database.</p> <p>Use of Forest Research ecological site classification (ESC) during the forest design plan review process to determine most suitable sites for commercial crops and identify areas where conversion</p>	<p>The District will have a reputation for producing quality timber.</p> <p>All suitable crops are thinned.</p> <p>Significant reduction in total area of poor-quality lodgepole pine.</p> <p>Forests restructured with commercial production focused on most productive areas and with increased areas of native woodland and open land habitat elsewhere.</p>

	<p>provenances of poor-quality lodgepole pine crops for early removal as a means of assisting the forest restructuring process. Developing woodfuel markets may enable us to speed up this process;</p> <ul style="list-style-type: none"> no longer planting sites with very low nutrient status (i.e. where commercial crops cannot be produced without fertiliser input) using commercial species, but allowing them to revert to either open land or a native woodland habitat. 	to open ground/native woodland habitats is more appropriate.	
Woodfuel	<p>The majority of our markets are located either south or east of Inverness and most of our timber currently travels long distances for processing. The woodfuel market is still small-scale, but if current developments come to fruition we should, in future years, see a significant proportion of our low-value small roundwood being processed in the District. This will improve harvesting revenues and has the potential to provide a market for the large volumes of poor-quality lodgepole pine crops in the District.</p> <p>The woodfuel market is developing and the District will continue to support local initiatives, e.g. the proposed Balcass plant at Invergordon and Caithness Heat and Power plant in Wick, and will underwrite supplies where existing commitments allow.</p>	Volume of timber marketed locally as woodfuel.	<p>Development of appropriately scaled woodfuel market capable of utilising low-value crops from remote forests currently situated long distances from existing markets.</p> <p>Reduction in roundwood timber miles.</p>
Supply chain - timber haulage	We will continue to support the nationally important work started under the Roadex partnership to introduce and develop the use of central tyre Inflation (CTI) on timber lorries. This could potentially allow access to blocks of woodland currently landlocked due to the fragile state of the narrow, single track road network that prevails across	Outurn of Roadex research work. Agreement from Highland Council that timber lorries fitted with CTI can continue to use the A897 and B871 to access forests in Strathnaver.	Agreement from Highland Council to extend usage of CTI-fitted vehicles onto other routes currently restricted for timber haulage under the Agreed Rotes system.

	<p>much of the North Highlands.</p> <p>Sea and rail will continue to be considered as alternatives to road transport wherever appropriate and commercially viable.</p>		
Encourage more use of timber	<p>The District has invested heavily in promoting the use of sustainably-produced timber and timber products as an environmentally friendly and cost-effective construction material. A striking and innovative log design building was chosen for a new office and storage shed in Borgie forest. The Borgie Log Cabin is the largest log scribe building in Scotland and is a showcase of the use of unprocessed timber as construction material. The District will continue to act as an exemplar in the use of timber in construction through the pioneering and inventive design of the proposed Camore Wood Amphitheatre building and any future construction projects that we undertake</p>	<p>Use of Borgie Log Cabin and Amphitheatre as exemplar projects to promote the use of local timber as an attractive, versatile and sustainable construction material.</p>	<p>Wider innovative use of locally sourced wood as sustainable construction material.</p>

3. Business Development			
Key local issues	Proposed response (including implementation)	Monitoring	Aspiration
Tourism	<p>Forestry can make a significant contribution to tourism, which is an important industry in the North Highlands.</p> <p>Current facilities and information provision are at an acceptable standard, but with limited funding, the District needs to evaluate carefully where best to invest future resources to achieve maximum benefit.</p> <p>Tourism is a very competitive business, and it is vital to provide a quality of experience that both attracts visitors and encourages them to stay. Forming closer links with the tourism industry is important to encourage better use of our woodland as a tourism asset.</p> <p>Ongoing work with the owners of the Shin Falls and Carbisdale Castle will continue with the joint aim of improving visitor experience, attracting more visitors and encouraging them to make better use of the FES facilities associated with the site.</p>	Visitor monitoring programme.	Forests are regarded, and supported, as an integral part of the tourism product for the area.
Local businesses	<p>Local supply businesses are extremely important in areas as geographically remote as Caithness and Sutherland. The District needs to support these businesses by purchasing equipment locally where it is both practical and cost effective to do so. Supporting local service providers such as tradesmen and accommodation providers will also assist in achieving this aim.</p>	Number of businesses involved and value of business.	A host of local enterprises gain all or part of their income from the national forest estate.

	We need to be open to and supportive of new business ideas. We also need to become less risk averse, while still retaining robust procedures to protect the public interest.		
Development of woodland crofts	The North Highlands continues to be a crofting stronghold. Local staff are currently in discussion with a number of community groups and other agencies with the aim of further developing and taking forward the woodland croft concept. The principle mechanism for this is likely to be the National Forest Land Scheme. This would allow community groups to acquire suitable areas of woodland that are currently part of the national forest estate to establish new woodland crofting townships.	Number of new woodland crofts established.	Establishment of a series of vibrant new crofting townships in which woodland management is a central focus.
Alternative sources of income	Diversification of income is vital to protect programme development in other areas, and opportunities should be sought and tested. Establishment of large-scale Christmas tree production in Caithness is a good example: a recent internal review endorsed this investment and forecast that the farm will generate significant income for FES at District and national levels. Before undertaking this type of venture, stakeholders should be consulted to ensure that proposals are well thought through and that long-term relationships are not damaged.	Proportion of income generated from sources other than timber sales.	Over 35% of the income in the District is generated from sources other than timber production.
Portfolio analysis	The existing estate has been analysed against a range of economic and non-market benefits utilising a national scoring system (see Appendix ***). During the period of this Plan, forests with low scores such as Rimsdale and	Forest plan revision. Area of land sold.	The make-up of the national forest estate gradually evolves to increase the potential for meeting future demands.

	<p>Benmore will be assessed for re-positioning to either improve their non-market and/or economic performance. If they are suitable candidates, this will be incorporated at the next amendment of the relevant forest plans. If not, they will be considered for sale to realise money for recycling to other key work areas, including new acquisitions.</p>		
<p>Staff and contractor skills</p>	<p>We will seek to participate in the Modern Apprenticeship scheme to help ensure that skilled recruits are available both as potential future direct employees and as forestry contractors.</p> <p>We will organise suitable training where skill shortages are identified to improve delivery of our work.</p>	<p>Participation in the Modern Apprenticeship Scheme.</p> <p>District training plan.</p>	<p>A multi-skilled and motivated District staff and contractor resource.</p>

4. Community development			
Key local issues	Proposed response (including implementation)	Monitoring	Aspiration
Education	The District urgently needs to re-establish links with the local education sector, both at primary school level and by helping to develop vocational initiatives in secondary schools. Some progress is being made, but with the current limited resources the level of contact is likely to remain low. The opportunity to secure at least a seasonal ranger to take forward environmental education activities needs to be explored. There is great potential in forming links with schools, and guide and scout groups. A dedicated member of staff would increase our ability to achieve this potential.	Number of schools and pupils involved.	Forests are seen as a valuable education resource.
Community engagement	Engaging effectively with local communities is becoming more important as public awareness of the national forest estate increases. We will continue to work with communities to encourage them to become more involved in the management of, and outputs from, their local forest. As communities increase their involvement in a forest, we may also have to increase our input to ensure that successful and sustainable partnerships are developed. We will also encourage an understanding of the contribution that forestry can make to Community Planning Partnerships and to the cultural value of the area. Most staff have adapted to these new roles, but we would all benefit from further training in this area.	Periodic review of the levels of engagement. Staff training.	All communities involved with local forests feel that they are delivering the outputs that they need.

Community facilities	<p>Community ownership is not a new issue for the District. We have been working closely with a number of communities over the past few years on both ownership and management issues. Where appropriate, we will continue to work with interested communities to support the National Land Scheme. We will also work with communities to explore options for management agreements where either ownership is not appropriate or where the community does not desire that level of responsibility. Community approaches for sites for facilities, or for purchase of land, will be positively received and, provided they fit the criteria published in the National Forest land Scheme will be processed as quickly as possible.</p>	<p>Feedback from community groups on how they have been dealt with.</p>	<p>A range of community opportunities are realised.</p>
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5. Access and health			
Key local issues	Proposed response (including implementation)	Monitoring	Aspiration
Access	<p>The District has invested heavily over the past few years in opening up access for the public. This has included installing visitors' welcome posts at all access points and creating 'open access' maps to give information about the wider forest estate, rather than just formal recreational facilities.</p> <p>We have good quality, well-managed recreational facilities and many features of interest, such as the native pinewoods at Einig and the Strathrory melt water channels. We now need to look at how we can better market and promote our woodlands to broaden the range of user.</p>	Progress against District recreation plan and area of land acquired.	Increased usage of their local woodlands by a wide range of the stakeholders delivering a range of benefits.
Health	<p>The District has previously undertaken small-scale health projects. These included linking with NHS surgeries to provide pedometers and forest walks information, and working with Step-it-Up Highland to deliver health walks. We need to look at how we can better contribute to the national health agenda. This is something that may be able to be incorporated into the work of a seasonal ranger.</p>	<p>Increased involvement with health professionals.</p> <p>Increased take up of health improving activities.</p>	District's woodland being used extensively for a wide range of active, health giving pursuits.
Enabling people to enjoy woodlands	In addition to traditional woodland-based activities such as walking and cycling, we will try to encourage people to make use of the forest in other, more interesting ways.	Uptake of usage of amphitheatre and range of events staged there.	Forest amphitheatre becomes a prestigious, economically viable and well respected performing arts venue.

In recent years, we have run a series of highly successful performing arts events. These have proved so popular that plans are currently being developed to construct a covered amphitheatre in the forest to serve as a permanent in-forest performance venue. This will be used for a wide range of activities and events, and will be available to both communities and local interest groups as a venue to stage their own events.

6. Environmental quality			
Key local issues	Proposed response (including implementation)	Monitoring	Aspiration
Water quality	<p>Woodland management for water quality will remain a significant issue in the District. All major rivers have SSSI status and most are of national importance for their salmon fishing interests. Most hill lochs contain stocks of wild brown trout and many are used by breeding pairs of both red and black throated divers. Several distilleries also draw water from catchments arising in our forests.</p> <p>Improved planning and extensive consultation with key stakeholders has provided us with better information on site and downstream issues for inclusion in the implementation plans. Other improvements will continue to be made to reduce risks of sedimentation or acidification. These include tighter control on harvesting in sensitive areas, keeping conifer planting back from watercourses and quarrying better quality roadstone to reduce the impact of haulage.</p>	Number of adverse incidents and complaints (District complaints register).	Forestry is seen as part of the solution to these issues, rather than part of the problem.
Landscape quality	<p>Caithness and Sutherland are popular tourist destinations and woodlands on the national forest estate dominate parts of the landscape in these counties. We will continue to include landscape as a major consideration in long-term forest planning and gradually resolve issues such as hard edges and unnatural geometric boundaries. Most of this can be delivered through conventional operations, but we will pursue additional resources where site or access conditions demand high-cost solutions. We also need to</p>	Delivery of forest plans.	The forests in the area are seen as a valued part of the landscape.

	look at how we can improve the aesthetic value of the woodland along major tourist routes to increase visitor enjoyment, e.g. the Struie and Lairg to Tongue roads.		
Cultural value	<p>Given its rich archaeological heritage, District staff are well aware of cultural issues and have become good at identifying archaeological features when planning work activities. This has resulted in the discovery of many archaeological remains, some of which have subsequently been scheduled by Historic Scotland e.g. Iron Age Hill Fort at Dounie.</p> <p>We now need to look at how we can improve the interpretation on the more significant sites to attract visitors and educate them further about the history of the area.</p>	Progress on scheduled ancient monument (SAM) plans.	Forests and woodlands are valued by local communities as part of their historical and contemporary culture.

7. Biodiversity			
Key local issues	Proposed response (including implementation)	Monitoring	Aspiration
Deer management	<p>Control of deer population, particularly sika, is likely to remain a major issue in the District. High levels of skill and commitment among local staff have allowed them to pioneer and develop new techniques, putting them at the forefront of modern deer management thinking. Population modelling, damage assessment techniques, collaborative working with neighbours through local deer management groups, the use of sporting leases, and improved hygiene and carcass handling techniques have all been developed and pioneered by the District team. These techniques will also be proliferated and demonstrated as areas of best practice.</p>	<p>Population levels maintained at levels that allow unimpeded natural regeneration.</p>	<p>District seen as exemplar of good deer management practice.</p>
Priority habitats	<p>The District contains 22 designated sites of special scientific interest (SSSIs); special protection areas (SPAs); special areas of conservation (SACs); and Ramsar sites, all managed under agreements with SNH. Influence over neighbouring designated sites is now also routinely covered in the forest planning process.</p> <p>The District fully recognises the need to protect and to restore priority habitats identified in national and local biodiversity action plans, such as blanket bogs and coastal dune systems. Staff now work closely with partner organisations, such as Forest Research, SNH and RSPB to achieve this.</p>	<p>Progress on SSSI management plans, including condition monitoring.</p> <p>Progress against District PAWS restoration plan.</p>	<p>All designated sites are in favourable condition, native woodland area is expanded and all forests contain a diverse range of habitats.</p>

	<p>An extensive programme of blanket bog restoration work recently took place, largely funded under the EU LIFE Peatland project. Research work is currently underway to draw up a robust protocol that will enable us to identify and prioritise further sites that would be suitable for blanket bog restoration as and when funding allows.</p> <p>Longstanding native pinewood restoration work will continue in Glen Einig. All plantations on ancient woodland sites (PAWS) in the District have been surveyed and prioritised for restoration.</p>		
Priority species	<p>Future forest structure will be designed to improve the habitat for these priority species and bring about an expansion of core populations where they exist.</p> <p>Local species action plans (SAPs) exist for black grouse and capercaillie. Habitat enhancement measures recommended in these plans will be normally be implemented by adjustments to normal operational practices. Extra funding will be sought where additional inputs are required.</p> <p>Work aimed at helping the 'keystone' species should also benefit a host of other species.</p>	<p>Forest plan proposals.</p> <p>Progress against programme in District conservation plan.</p> <p>Progress against black grouse and capercaillie SAPs.</p>	<p>The national forest estate is a haven and reservoir for these priority species.</p>
Habitat networks	<p>As part of the review of the District's open land holdings, opportunities will be sought to identify areas that, if planted, could provide vital links in the local habitat network. We will also investigate opportunities to acquire land (through either purchase or excambion) that is identified as being important in creating or enhancing habitat networks.</p>	<p>Forest plan proposals.</p>	<p>The national forest estate is a key component of habitat networks.</p>

In a number of areas, projects or programmes have been identified as not currently resourced. Before external funding is pursued or internal resources are re-allocated, these will be subject to a project planning process for approval by the FES Management Board. Part of this process is to measure the project of programme against national priorities and to identify the funding for initiation and construction, and issues such as future funding for maintenance.

In addition to the key issues identified above, there is a large amount of baseline work associated with the delivery of sustainable forest management on the national forest estate. This requires the embedding of a whole raft of national guidelines (e.g. FCS forest and water guidelines) and legislation (Health and Safety Act) in our daily work practices. This is externally monitored by auditors appointed to test our practices against the United Kingdom Woodland Assurance Scheme (UKWAS).

From the key issues listed above, there are four key areas that, due to the opportunities in this area, we would like to become regarded as having made a significant contribution to the national delivery against the Scottish Forestry Strategy:

- **Woodfuel:** support and development of local woodfuel plants as an outlet for low-value products, as a source of renewable energy, and as a means of reducing roundwood timber miles;
- **Restoration of priority habitat:** i.e. ongoing work on the restoration of blanket bog;
- **Deer management:** continue to act as exemplars of best practice in deer management;
- **Community involvement/development:** the District has a low, widely distributed population that is often dependent on seasonal activities such as tourism, crofting and fishing. Forestry continues to provide opportunities that may be marginal in themselves, but may tip the balance in providing acceptable incomes.