Forestry Commission Scotland
Coimisean na Coilltearachd Alba

Advice

The right tree in the right place

Planning for forestry & woodlands

natural scotland
SCOTTISH GOVERNMENT

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Contents

1. Introduction

1.1 Purpose and status of this guidance

This guidance provides Scottish Government advice to planning authorities on planning for forestry and woodlands. It supports Scottish Ministers' desire to see a significant expansion in woodland cover, delivering multiple benefits to society.

This guidance is issued by Forestry Commission Scotland, which serves as the Forestry Directorate of the Scottish Government, and was prepared in close co-operation with the Directorate for the Built Environment, Scottish Natural Heritage and others. It should inform the preparation of development plans and may be a material consideration in planning decisions.

Part 3 of this guidance replaces **Circular 9/1999** on Indicative Forestry Strategies (IFSs) (which is now withdrawn), and encourages planning authorities to consider preparing new forestry and woodland strategies as supplementary guidance to development plans, to guide the future development of forestry and woodlands in their areas.

1.2 Outline structure of this guidance

Section 2 introduces the current policy context for forestry and woodlands in Scotland and outlines the considerations that should inform how planning authorities approach woodland issues.

Section 3 replaces Circular 9/1999 and advises planning authorities on developing a new generation of forestry and woodland strategies as supplementary guidance to development plans, to replace existing IFSs. It highlights the benefits of developing new forestry and woodland strategies to inform future woodland expansion, outlines the role that they can play in the modernised planning system, and provides advice on their preparation and content.

Section 4 provides more detailed advice to planners on the different roles that forestry and woodlands can play, and the multiple benefits that they can deliver when well planned and well managed. It provides advice on how planning authorities can incorporate forestry and woodland issues into development planning, and identifies where more detailed advice on key aspects can be found.

Section 5 provides advice on the consideration to be given to forestry and woodlands in development management decisions, in particular proposals involving the loss of existing woodland.

Terminology

The terms 'woodlands' and 'forests' are used interchangeably by many people, although 'forests' are often perceived to comprise larger scale, commercially planted areas of trees. Given the emphasis in modern Government policy on the delivery of multiple benefits from forests and woodlands, and the planting of large areas of 'native' or 'natural' woodlands, this distinction is increasingly irrelevant.

This guidance therefore uses the term 'woodlands' throughout to refer to all areas of land, larger than 0.25 hectares, where trees are growing. In some sections the role of trees, individually and in small groups, is discussed. Where this is the case the text makes this clear. The term 'forestry' is used to refer to the science, art and practice of managing 'woodlands' on a professional and sustainable basis to ensure that their economic, social and environmental benefits to society are optimised.

Throughout this guidance the term 'development plan' is used to refer to both strategic and local development plans and supplementary guidance (for example, a forestry and woodland strategy) prepared and adopted as part of a development plan.

2. Current policy context & drivers

Modern forestry policy and practice focuses on achieving sustainable development, and delivering a diverse range of benefits to society from trees and woodlands. This section summarises the current legislation, policies, strategies and programmes that should inform how authorities plan for forestry and woodlands in their area.

2.1 Woodlands and forestry

Following centuries of deforestation, Scotland is a relatively lightly wooded country in European terms (see figure 1) with woodlands occupying about 17% of total land area (around 1,300,000 hectares). The Scottish Forestry Strategy[1] (SFS), published in October 2006, is the Scottish Government's framework for taking forestry forward through the first half of this century and beyond. It sets out a vision for Scottish woodlands and identifies seven key themes that will help achieve the vision:

- Helping Scotland mitigate and adapt to **climate change**;
- Getting the most from Scotland's **timber** resource;
- Supporting sustainable economic growth through the **business development** of the Scottish woodland sector;
- Supporting **community developmen**t to improve quality of life and wellbeing;
- Improving access to woodlands, to help improve the **health** of Scotland;
- Protecting the **environmental quality** of our natural resources, including water, soil, air, landscape and historic environment; and
- Helping to conserve and enhance Scotland's **biodiversity**.

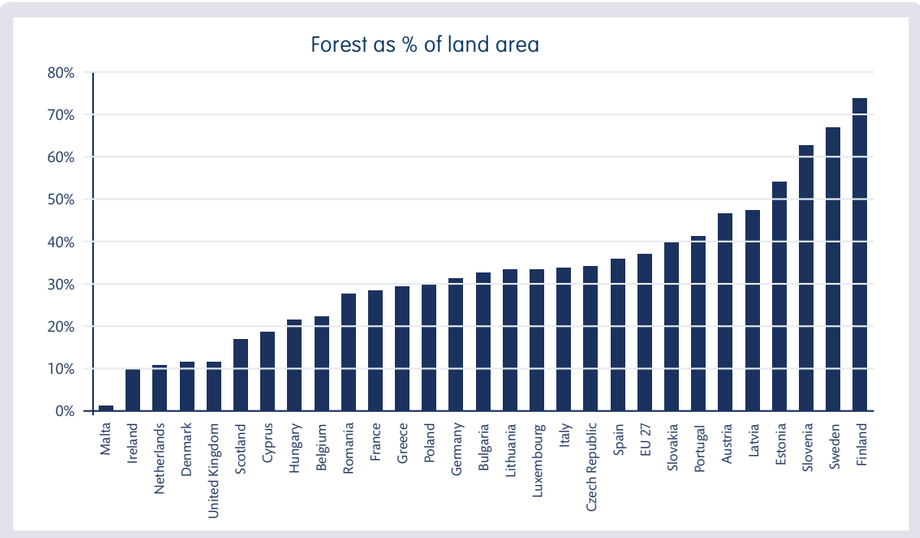


Figure 1: Woodland cover in the European Union

[1] www.forestry.gov.uk/sfs

The vision set out in the SFS includes the ambition to increase woodland cover to 25% of land area by the second half of the century and emphasises the need to integrate woodlands with other land uses. The SFS aims to maximise the delivery of multiple benefits from Scottish woodlands and it is increasingly recognised that sustainable forestry can contribute to the delivery of the Scottish Government's central purpose and its five strategic objectives.

The expansion of well managed woodlands throughout the country can help ensure that Scotland is:

Wealthier & Fairer – by, for example, underpinning a sustainable forest products industry, reducing the reliance of the UK on wood imports, and supporting the development of the rural economy.

Healthier – by providing a setting for informal recreation that encourages regular exercise and improves physical and mental wellbeing.

Smarter – by providing a focal point for outdoor education activity, an inspiring environment in which to learn for those who find formal education difficult, and opportunities for people to volunteer, improve their skills and enhance their employability.

Safer & Stronger – by improving the quality of the environment in deprived and regeneration areas, contributing to the development of green networks and natural flood management, and by providing a focus for community involvement and community projects.

Greener – by conserving biodiversity, restoring lost habitats, helping species adapt to climate change, and mitigating the impact of climate change by acting as a carbon store, a source of carbon neutral building materials, and as a source of renewable heat and energy.

Traditionally, forestry was perceived as almost exclusively a rural land use, but the value of well managed, accessible woodlands and trees to urban and peri-urban communities (for economic regeneration, micro-climate and quality of life) is increasingly being recognised. The SFS and other Scottish Government policies acknowledge this and identify action to ensure woodlands deliver a wide range of benefits throughout both rural and urban Scotland.

Recent policy developments build upon the SFS and consider the action that needs to follow if the vision is to be achieved. Particularly relevant is the **Scottish Government's Rationale for Woodland Expansion[2]** that explores how targets for expansion can be achieved, while optimising the benefits to Scotland. Together with Forestry Commission Scotland's **Climate Change Action Plan[3]**, it emphasises the importance of proactively planning for woodland expansion, and the important role that forestry and woodland strategies, prepared as supplementary guidance to development plans, can play in securing maximum benefits from new woodlands. In addition, Scottish Ministers approved a new **Policy on Control of Woodland Removal[4]** in 2008 that confirms a presumption against the loss of existing woodland, unless it will achieve significant and clearly defined additional public benefits, and a particular presumption against the removal of woodland of high nature conservation value. Section 5 of this guidance provides further advice to planning authorities on the implications of this policy for development management.

[2] www.forestry.gov.uk/fcspolicies
[3] www.forestry.gov.uk/ccapscotland
[4] www.forestry.gov.uk/woodlandremoval

The Scottish Forestry Strategy is underpinned by the need for sustainable forest management as benchmarked by the UK Forestry Standard[5]. The Standard sets out legal requirements and good practice standards for sustainable forest management. All publicly funded or licensed forestry in Scotland is required to meet this Standard and planners are encouraged to seek compliance of any woodland planting, felling and management that they consent. Appendix 1 provides further information on the UK Forestry Standard and it's associated guidelines. In addition, all relevant forestry projects (including afforestation, deforestation, forestry quarrying and the building and maintenance of forest roads) are assessed for their likely impact on the environment under the **Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999**[6].

The SFS is due to be reviewed in 2011-12 and future revisions to the policy framework surrounding Scottish forestry will be published at: **www.forestry.gov.uk/scotland**

2.2 Rural development

The **Scotland Rural Development Programme**[7] (SRDP) 2007 – 2013 was approved by the European Commission in February 2008 and sets out the programme of economic, environmental and social measures that will be used to develop rural Scotland over the programme period. Its five key outcomes closely echo the themes of the SFS. Applicants for SRDP funding are encouraged to match their proposals to regional priorities, identified by Regional Proposal Assessment Committees (RPACs). In many areas woodland creation has been identified as a key opportunity for farm and rural diversification.

The key mechanism for delivering the outcomes of the SRDP will be **Rural Development Contracts** – an integrated funding mechanism that aims to deliver targeted environmental, social and economic benefits. Land managers and owners apply for grant support by choosing from a menu of options, including a number of forestry-specific options (e.g. woodland creation or woodland improvement) and a number of other relevant options (e.g. processing and marketing or enhancing rural landscapes).

In addition, two challenge funds are available within the SRDP, comprising:

Woods In and Around Towns (WIAT) 2 – which aims to bring urban woodland into sustainable management and improve recreation facilities; and

Forestry for People (F4P) – which supports local involvement in woodland projects to improve health, to enhance learning opportunities and to strengthen communities.

Section 3 explains how a new generation of forestry and woodland stratgies can help inform regional priorities and the assessment of applications under SRDP.

[5] www.forestry.gov.uk/ukfs
[6] www.forestry.gov.uk/forestry/eia-scotland
[7] www.scotland.gov.uk/srdp

2.3 Planning

Scottish Planning Policy supports the delivery of the SFS by emphasising the contribution that woodlands can make to a wide range of Government objectives. Planning authorities will wish to take particular account of the following when considering the future of woodlands locally:

- Section 159 of the **Town and Country Planning (Scotland) Act 1997**, places a duty on planning authorities to ensure that, whenever appropriate, planning permissions make adequate provision for the preservation or planting of trees.
- The second **National Planning Framework** (NPF2) reiterates the objectives of the SFS and the need to plan proactively for an expansion of woodland cover. In addition, NPF2 confirms the protection that should be afforded to existing woodland, and that woodland removal should only be permitted where it will achieve significant and clearly defined additional public benefits. NPF2 also emphasises the importance of developing green networks and habitat networks for the benefit of people, landscape and nature.
- **Scottish Planning Policy** on landscape and natural heritage confirms the protection of existing woodlands and the value of green networks set out in NPF2.
- **Scottish Planning Policy** on renewable energy requires the planning system to facilitate the development of renewable energy, including biomass generation, where resource and infrastructure conditions are appropriate.
- **Planning Circular 1/2009** on Development Planning identifies forestry and woodland strategies as a suitable topic for supplementary guidance to a new generation of development plans.

Section 4 contains more detailed advice on the relevance of these (and other) documents to the consideration of woodlands in development planning.

Scottish Planning Policy

National Planning Framework

2.4 Integrated land-use policy, planning & management

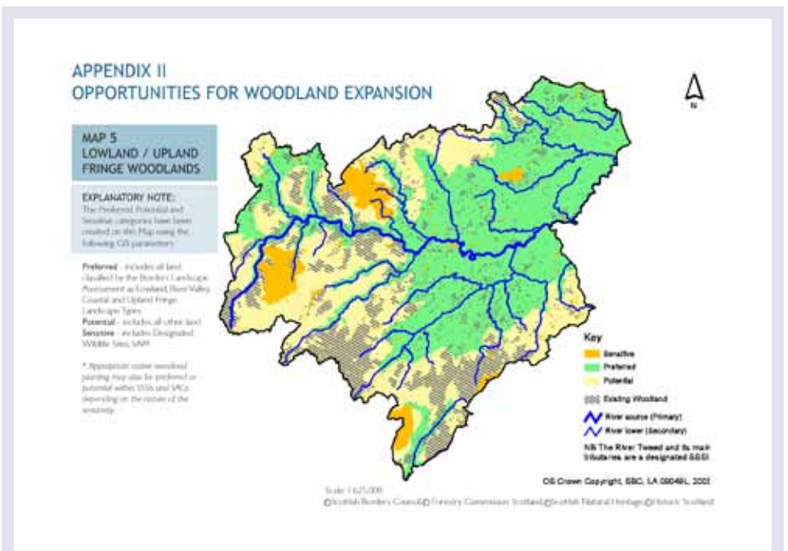
The **Planning etc (Scotland) Act (2006)** places sustainable development at the heart of the planning system and part 1 of the new **SPP** confirms that one of the purposes of planning is to balance competing interests in the future development of an area. It also confirms that it should be a plan led system, with a clear focus on the sustainable use of land.

The Scottish Government believes that local authorities should play an important role in influencing the future development of woodlands and forestry in their areas by articulating democratically expressed local views about this major land use. Section 3 of this guidance provides advice on how authorities might do this through the development of an up to date forestry and woodland strategy as supplementary guidance to development plans.

Well planned and well managed, and integrated effectively into the local mosaic of land use, woodlands can play an important role in delivering a wide range of Government objectives, as well as meeting local priorities and needs. Equally, if poorly planned and poorly managed, opportunities to harness woodland benefits can be missed or negative impacts on the economy, society and the natural and historic environment can result.

The Scottish Government is currently conducting a review of how we value our rural land resource, to assess the current and potential contribution of our land to support a wide range of policy objectives – including woodland expansion. In addition, the **Climate Change (Scotland) Act 2009**[8] places a duty on Scottish Ministers to prepare a land use strategy by the end of March 2011. Planning authorities will wish to consider the outcomes of this work in due course.

This guidance aims to promote integrated land use policy, planning and management that delivers ***the right woods in the right places.***



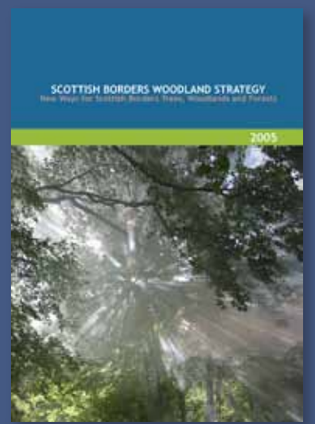
Opportunities for woodland expansion in the Scottish Borders

[8] www.scotland.gov.uk/climatechange

New vision and action plan guide the expansion of woodlands in the borders

The production of a comprehensive new woodland strategy by Scottish Borders Council in 2005, linked to the existing structure plan, has helped to focus efforts on realising the full range of benefits from local woodlands and to guide new planting to the most appropriate locations. New Ways for Scottish Borders Trees, Woodlands and Forests was produced by the Council in 2005, working closely with Forestry Commission Scotland, SNH and the Borders Forest Trust. The development of the strategy was guided by a broad steering group, including representatives from the forestry and timber sectors, local estates, other government agencies, and local and national NGOs.

The strategy adopted a positive and opportunities-oriented approach, which sought to guide the expansion of woodland locally, as well as to develop the forestry sector into an exemplar of sustainable development. Following initial scoping to review the existing IFS, to determine the strengths and weaknesses of the sector locally and to identify key issues, a vision and set of operating principles were agreed with the Steering Group to underpin the strategy. These informed an Issues Discussion Paper that sought the views of wider stakeholders on the key issues – including the criteria to be used to map opportunities for new woodland planting.



Borders Woodland Strategy

The result is a strategy that is 'owned' by all local stakeholders – not just the Council or Forestry Commission Scotland – one that provides policy guidance on a range of forestry and woodland issues and indicative maps identifying the suitability of land across the Borders for a range of different woodland types. As such the strategy provides a powerful vision for how Borders woodlands will change as an integral part of the land use balance in the area.

Importantly the strategy also identifies the actions that need to be delivered if the vision in is to be realised. Delivery of the strategy, and the actions therein, is being steered by an Implementation Panel, composed of members of the Steering Group and other key stakeholders. Overall the approach serves as a shining example of what can be delivered through the adoption of a positive, inclusive and differentiated approach to forward planning for forestry and woodlands.

The strategy, including the key actions can be accessed at:
www.scotborders.gov.uk/life/planningandbuilding

3. Preparing a forestry and woodland strategy

This section replaces Circular 9/1999 on Indicative Forestry Strategies and provides advice to planning authorities on the value of producing an up to date forestry and woodland strategy, their suggested scope and content, and a suggested outline process for producing one.

3.1 The value of a forestry and woodland strategy

Indicative Forestry Strategies (IFS) were first introduced in the early 1990s as a tool for reducing conflict, by steering new planting to less sensitive areas. At the heart of an IFS is a strategy diagram, setting out those areas that are considered "preferred", "potential" or "sensitive" for future planting. In recent years, IFS have become more proactive by reflecting a local authority's and key stakeholders' objectives for woodlands locally, and the criteria and policies against which proposals for planting, felling or restructuring will be considered.

- Scottish Ministers wish to see such a positive approach adopted as standard practice, and for future strategies to take a proactive approach to guiding the future of woodlands and forestry across the country. To reflect and reinforce this new emphasis Ministers believe that it is appropriate to revisit the terminology used. The term **forestry and woodland strategy** should now be used to describe an authority's vision, policies and plan for the future of woodlands and forestry in their area.

The principal value to a planning authority of producing a forestry and woodland strategy will be to guide the future expansion and restructuring of woodlands in their area to maximise the benefits for the local economy, communities and environment. Through a clear articulation of the contribution woodlands will make to delivering economic, social and environmental outcomes, and the local circumstances and factors to be taken into account when assessing forestry projects, the strategy will inform future woodland management or planting proposals and the consultation on them. By steering new planting to the most appropriate locations the strategy will therefore help reduce conflict over proposals, and ensure that the uptake of grants for new planting is maximised.

3.2 The status and role of a forestry and woodland strategy

Most existing IFSs are incorporated within Structure Plans. The modernised planning system introduced by the 2006 Planning Act means this is no longer possible. Nevertheless, Scottish Ministers consider that preparing forestry and woodland strategies as part of development plans underlines their important status in relation to a range of land use planning and management decisions. It is therefore recommended that forestry and woodland strategies are best prepared as supplementary guidance to development plans, although it will be for planning authorities to determine the status given to strategies locally.

Within the city regions a forestry and woodland strategy may be prepared by the Strategic Development Planning Authority and adopted as supplementary guidance to the Strategic Development Plan (SDP) where there are cross boundary impacts and issues that need strategic consideration. Whether or not a woodland strategy is prepared at the SDP level, individual planning authorities in the city regions should consider whether they wish to prepare their own detailed advice on forestry and woodland issues as supplementary guidance to local development plans.

Outwith the city regions, and in the national parks, forestry and woodland strategies may be prepared as supplementary guidance to LDPs. There is nothing to prevent neighbouring authorities from collaborating to produce joint strategies, indeed there will be advantages to considering some issues on a cross-boundary basis. In all cases, when preparing forestry and woodland strategies, planning authorities should consult with neighbouring authorities to ensure that policies and proposals for adjoining areas are compatible.

A forestry and woodland strategy should be viewed as a strategic management tool – helping to inform the location, design and management of woodlands within an area and to target grant support for forestry projects. Authorities should make clear within their forestry and woodland strategy how they anticipate that both they and others will use it. Scottish Ministers consider that a forestry and woodland strategy might be used to inform:

- **Development Management** decisions that include proposals for woodland removal or woodland creation. Section 5 of this guidance provides further guidance on the consideration of woodland issues within development management.
- The development of Regional Priorities for SRDP by RPACs and an authority's views on **planting proposals** and **applications for grant support** (for example, for rural development contracts under the SRDP).
- The screening and scoping of proposals that fall within the scope of the **Environmental Impact Assessment** (Forestry) (Scotland) Regulations (1999) – i.e. proposals for new planting; deforestation; the formation, alteration or maintenance of forest roads; or the creation of forest quarries.
- The development and approval of **Forest District Strategic Plans** and long term **Forest Design & Management Plans**, including felling proposals.
- The content of **related spatial plans** (see section 3.4 below).
- The next **Development Plan** for the area.

3.3 Content, coverage and scale

3.3.1 Content

A forestry and woodland strategy should be map based and should draw on the aims and objectives of the SFS, the development plan and other relevant plans and strategies. It should provide a brief overview of the existing woodlands in the area and comment on the main current issues affecting forestry and woodlands, and those likely to arise in the future. A forestry and woodland strategy should then set out the authority's vision for how the extent and character of woodlands in the area will develop over the period of the development plan and beyond and the policies against which proposals for new planting or restructuring will be assessed. Scottish Ministers envisage that forestry and woodland strategies will be broad in scope and that they will consider the development of the full range of woodland types within their area.

It will be for planning authorities (in consultation with local communities and key partners) to determine the topics

covered in their forestry and woodland strategy, but it is suggested that the authority will normally wish to consider the potential role of forestry and woodlands in:

- promoting sustainable economic growth;
- promoting rural development and diversification of the rural economy;
- helping to regenerate deprived communities through the creation of attractive environments in which people wish to live, work, and invest (including the development of green networks);
- providing a setting for formal and informal recreation (including their role in open space strategies and health improvement);
- promoting community development, including as a community owned or managed asset;
- helping to deliver a Curriculum for Excellence as a setting for a wide range of learning and development experiences;
- promoting tourism;
- contributing to the development of renewable energy, in particular the use of woodfuel and bioenergy crops to produce heat and power;
- conserving and enhancing biodiversity, including the development of habitat networks;
- enhancing landscapes (including their interaction with the historic environment);
- natural flood management and improving water quality;
- conserving and enhancing finite soil resources;
- improving vacant, derelict and underused land; and
- helping Scotland mitigate and adapt to climate change.

Authorities will also need to consider how any potential negative impacts from new forestry and woodland proposals can be avoided, minimised or mitigated.

3.3.2 Land categories

Woodland strategies should continue to divide land into **categories**, indicating the suitability of different locations for new woodland planting. However, authorities should also identify how the categories apply to different **woodland types** (see section 3.3.3).

The allocation of land into categories will necessarily be a strategic process and within any of the categories there are likely to be smaller areas which, with more detailed examination, could have been allocated to another category. **The importance of site specific assessment of individual proposals for woodland expansion (and deforestation) is therefore paramount.**

Nevertheless, the following definitions are recommended.

Preferred land will be that which offers the greatest scope to accommodate future expansion of a range of woodland types, and hence, to deliver on a very wide range of objectives. Within preferred areas sensitivities are, in general, likely to be limited, and it should be possible to address any particular site specific issues within well designed proposals that meet the UK Forestry Standard and associated guidelines (see Annex A). Future woodland expansion is therefore likely to be focused on preferred areas.

Potential land will be that which offers considerable potential to accommodate future expansion of a range of woodland types, but where at least one significant sensitivity exists. The extent to which specific proposals in potential areas will be permissible will depend on how well sensitivities can be addressed within the proposals. The design of schemes in such areas will require careful consideration.

Sensitive areas will be those where a combination of sensitivities means there is limited scope to accommodate further woodland expansion. Limited woodland expansion is only likely to be possible within sensitive areas where it is of a scale and character which can be accommodated without significant negative impacts and/or where it would positively enhance the features of interest locally. In some areas cumulative impact may be a relevant consideration.

It will be for planning authorities to determine the detailed list of sensitivities locally that should inform the categorisation of land, but it is expected that this will include priority species and habitats, landscape, the cultural and historical environment, and interactions with the water environment and soils.

In general, the more sensitive the classification, the more numerous and significant are likely to be the issues that will need to be addressed in considering a change of land use – both to or from woodlands – and the greater the likelihood that an Environmental Impact Assessment will be required. An **appropriate assessment** under the Habitat Regulations will be required for all proposals which could have a significant effect on Natura 2000 sites.

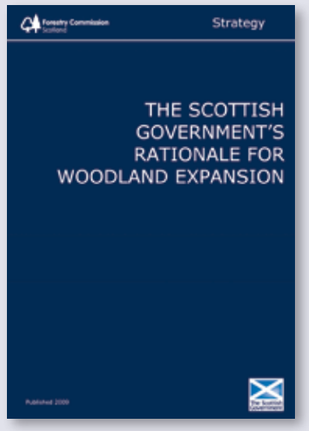
3.3.3 Woodland types

Recent IFS have tended to identify the potential for the expansion of different types of woodland, as well as the overall constraints upon woodland expansion through the preferred, potential and sensitive categories. For example:

- The Scottish Borders Woodland Strategy maps opportunities for expansion of lowland/upland fringe woodlands, upland forests, native and riparian woodlands and urban fringe/community woodlands.
- The Highland Forest and Woodland Strategy identifies four land categories: 1) suitable for all types of woodland; 2) preference for mixed woodland mosaic; 3) planting primarily for nature conservation; and 4) limited potential for sensitive woodland development.

In addition, the Scottish Government's Rationale for Woodland Expansion envisages an increase in four main types of woodland: 1) **native woodlands;** 2) **mixed woodlands;** 3) **softwood forests**; and 4) **energy forests** (see page 16).

Scottish Ministers wish to encourage the adoption of a differentiated approach and planning authorities should therefore consider, with communities and their key partners, what types of woodland they wish to include maps for and give particular advice on in their strategy.



Woodland expansion

Native woodlands

Mxed woodlands

Softwood forests

Energy Forests

3.3.4 Scale

Scottish Ministers do not wish to prescribe the geographic scale at which a forestry and woodland strategy is prepared. Nevertheless, spatial maps and diagrams in a forestry and woodland strategy should be prepared at a sufficiently detailed scale to enable land managers and owners, and those considering proposals for changes in land use, to identify any relevant considerations, sensitivities and constraints that might influence their forward plans.

Most existing IFS maps and diagrams are produced at 1:250,000 scale and it is expected that this will be sufficient in most cases. However, there may be instances where authorities would wish to prepare maps and diagrams for part of their area at a larger spatial scale – for example, where there are a number of sensitivities and/or a variety of woodland types/land uses in close proximity.

3.4 Linking a forestry and woodland strategy to other spatial plans & strategy

To ensure that the future development of woodlands and forestry is fully integrated with other land use decisions a forestry and woodland strategy will need to be informed by and, in turn, inform a range of different spatial plans. The following list identifies a range of plans & strategies that will be relevant. It is not intended to be exhaustive and there may well be other plans locally that a planning authority will wish to consider.

- River Basin Management Plans;
- Flood Risk Management Plans;
- Biodiversity Action Plans & Habitat Network Plans;
- Green Network Plans & Open Space Strategies;
- Local Forestry Frameworks, Forest District Strategic Plans & Forest Design Plans;
- National Scenic Area Management Strategies;
- Core Path Plans;
- Economic Development Plans;
- Community Plans and Single Outcome Agreements;
- Spatial Strategies for Wind Energy;
- Mineral Plans & Waste Management Plans (where forestry is potentially a significant afteruse for sites); and
- Transport Plans/Strategies (where timber transport is a significant issue locally).

3.5 Preparing a forestry and woodland strategy

A forestry and woodland strategy should convey and reflect local circumstances, recognising that the factors relevant to proposals for woodland creation, restructuring and removal in different parts of the area will vary according to the physical characteristics of the land and existing patterns of land use.

Should a planning authority wish to develop a forestry and woodland strategy as statutory supplementary guidance to the development plan, there must be a specific commitment in the local or strategic development plan to do so, and a clear local policy direction for the strategy to reflect.

3.5.1 Building a partnership

In developing their forestry and woodland strategy planning authorities should harness the expertise of national and local partners to inform policies and proposals and to ensure that there is widespread support for the final plan by adopting a partnership approach. While ultimately a forestry and woodland strategy will be a statement of the planning authority's policies and priorities for woodlands and forestry, it is recommended that Forestry Commission Scotland is invited to work closely with the authority to produce the strategy. The regional Forestry Commission Scotland Conservancy office can bring considerable experience and expertise to the production of the strategy and recent examples point to the benefits of a collaborative approach. The production of a new forestry and woodland strategy is likely to further the Government's aims and objectives for woodlands locally, and Forestry Commission Scotland can normally offer financial and logistical support for the strategy preparation process. Annex B provides more detail on the sort of data, GIS tools and expertise that the Forestry Commission (and others) can provide.

Other key partners in the preparation of the strategy may include other local authority departments, SNH, SEPA, Historic Scotland, HIE/Scottish Enterprise, community planning partners, representative industry bodies, NGOs and local communities. Where relevant, the authority should also consider inviting representatives of a Forest Industry Cluster and Timber Transport Groups to participate.

Planning authorities may also wish to consider the potential role of the Regional Forestry Fora in the development of the strategy. Given their broad membership there may be value in using the local forum as a sounding board at key stages in the development of the strategy.

3.5.2 Environmental assessment

When preparing a forestry and woodland strategy, planning authorities should consider at the outset whether a **Strategic Environmental Assessment (SEA)** is required[9]. This must be considered on a case-by-case basis and with reference to the SEA of the development plan, which the strategy will form part of. However, it is considered likely that many forestry and woodland strategies will require SEA and early engagement with the consultation authorities will help identify likely issues and sensitivities as early as possible in the process. In addition to the statutory requirements on SEA, planning authorities must also consider whether a forestry and woodland strategy could have a significant effect on a European Site and hence whether an Appropriate Assessment may also be required[10]. Planning Authorities are encouraged to involve SNH at the outset and to take account of their advice on the need and form of any Appropriate Assessment, where such assessment proves necessary.

It is important to note that there may be opportunities to avoid unnecessary duplication, between the assessment of the development plan and the assessment of the forestry and woodland strategy, if they are appropriately planned.

Planning authorities must satisfy themselves that they are complying with relevant legislation. Following the staged approach suggested below should help to ensure that adequate public consultation is built into the process and undertaken at a sufficiently early stage to meet SEA requirements.

3.5.3 Adopting a staged approach

It will be for the planning authority to decide upon the detailed process for preparing their forestry and woodland strategy. No one template will meet the needs and circumstances of all strategic or local planning authorities, but recent experience suggests that the following staged approach provides a useful outline.

Stage 1a – Review of Existing IFS and/or LFF – to identify the views of key stakeholders on the strengths and weaknesses of existing plans and strategies; significant changes to the location, scale, nature, ownership and condition of woodlands in the area since publication; and progress against any indicators included in the plan. This will inform Stage 2 and beyond, by identifying areas where further research, consultation or data collection is required. It would be useful to commence screening and possibly scoping for the SEA of the strategy (if required) at the earliest possible stage in the policy preparation process. Authorities should also begin to consider at this stage whether an Appropriate Assessment is required.

Stage 1b – Data Collection and Analysis – in concert with stage 1a to identify and collate the key data needed to show changes to the local context since the publication of the last plan, and any relevant trends or factors likely to influence the future development of woodlands locally. This might include recent statistics on woodland planting and felling, maps of existing habitat networks and priority species, the location of wood processing and biomass energy production facilities, agreed timber transport routes, assessments of the accessibility of existing woodland in and around settlements and future climate predictions.

It is recommended that a 'Concept Map' is prepared at this stage to illustrate the main constraints (factors which reduce freedom of action such as protected sites and known historic and cultural environmental assets) and opportunities where there is greater flexibility to accommodate woodland expansion. This map should be available prior to the scoping of the strategy and be updated with any new information identified as a result of scoping.

If SEA is required the main part of the SEA scoping is likely to fit comfortably with this stage. The data gathered for the Strategy could also provide much of the required environmental baseline that is generally set out in the SEA scoping report and later used to inform the main part of the SEA.

[9] www.scotland.gov.uk/topics/built-environment/planning/national-planning-policy/themes/enviro-assesment

[10] www.scotland.gov.uk/topics/built-environment/planning/national-planning-policy/themes/enviro-assesment

Stage 2 – Scoping of the Forestry and Woodland Strategy – in consultation with key stakeholders to identify the key issues, challenges and constraints likely to influence the future development of woodlands in the area, the types of woodland requiring specific consideration locally, and the strategic alternatives that might be pursued through the plan. SEA scoping should be concluded by the end of this stage. Assessment may begin as soon as different options and alternatives are developed and considered within the early part of the policy drafting process.

Stage 3 – Drafting of the Strategy – preparing a first draft of the plan, setting out the preferred objectives and policies governing the future expansion, restructuring and development of woodlands and forestry within the area, and setting out proposals for the different woodland types by category in draft maps. In addition to the preferred policies and proposals, reasonable alternatives should also be included for assessment. If required, an Environmental Report should be drafted alongside the strategy, and the Appropriate Assessment, where one is required, should also be progressed.

Stage 4 – Consultation on the Draft Strategy – to seek views on the policies, proposals and maps in the strategy. This may include local public meetings to ensure that communities have a chance to input to proposals and might also include more focussed meetings on particular areas or themes with key stakeholders. Authorities should consult on the draft Environmental Report at the same time.

Stage 5 – Finalisation of the Strategy – refinement of the draft strategy to reflect views from the consultation, and adoption by the authority through the development plan. The Appropriate Assessment, where one is required, should be concluded prior to adopting the strategy. If applicable, the post adoption SEA Statement should be published as soon as is reasonably practicable after the strategy has been adopted.

3.6 Data availability & GIS tools

There are a number of datasets, data sources and GIS tools that will be of use to an authority when considering the nature and characteristics of land within their area, its potential for future changes in land use, and the potential woodland benefits that may be derived from it. Annex B provides information on a range of sources and tools that may be of use. It is not intended to be definitive and new sources may become available. Up to date advice can be obtained from Forestry Commission Scotland, SNH, SEPA, and Historic Scotland.

3.7 Local indicators and targets

Authorities will wish to consider what indicators to use to track progress towards the objectives of a forestry and woodland strategy, and whether they wish to set local targets to drive delivery, linking to the outcomes and indicators in their **Single Outcome Agreement** as appropriate.

Scottish Ministers have chosen not to specify local targets for the expansion of woodland cover. It will be for local authorities, in consultation with Forestry Commission Scotland, communities and their key partners, to consider the desirability of setting targets for woodland expansion or improvements to woodland quality and connectivity locally. What is important is that the indicators identified enable an authority to determine whether progress is being made towards the vision set out in the strategy.

3.8 Monitoring and review

A forestry and woodland strategy should be viewed as a dynamic document, capable of adjustment to changing circumstances and priorities and with the underlying data informing its policies and proposals kept up to date.

An authority will therefore wish to agree with their key partners responsibilities for maintaining the accuracy of the underlying data and for updating progress towards indicators and targets in the strategy. They will also wish to agree the timescales for monitoring, reporting and reviewing indicators and targets. Once prepared, authorities should consider the need to review their forestry and woodland strategy every 5 years as part of the development planning process.

3.9 Transitional arrangements

Existing structure plans and Indicative Forestry Strategies will remain in place until a new strategic or local development plan and forestry and woodland strategy are adopted.

4. Woodlands and development planning

This section explains the contribution that forestry and woodlands can make to a range of Scottish Government outcomes and how these can be supported through development planning, either through policies in the plan itself, or through supplementary guidance. Scottish Government Planning Circular 1/2009 confirms that Forestry Commission Scotland should have the same level of involvement in the development planning process as the "key agencies", and early engagement to identify the key issues concerning forestry and woodlands locally is therefore encouraged.

4.1 Woodlands and sustainable economic growth

The Scottish Government's overarching purpose is *"to focus the Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth."*

The **Government's Economic Strategy**[11] sets out its approach to achieving sustainable economic growth and how it will align all public sector organisations with the Government's overarching purpose.

The Strategy makes it clear that achieving the purpose will require "*a planning framework that both protects the quality of Scotland's natural and built environment as an asset for sustainable economic growth and enables the development of growth-enhancing activities across Scotland, including rural areas.*"

Scottish Planning Policy on economic development encourages local authorities to provide sufficiently diverse and flexible sites to accommodate current and potential future economic development needs. It emphasises the importance of providing accessible sites, and notes that planning can also support economic growth by reinforcing the quality of life and sense of place within settlements.

The **Scottish Forestry Strategy** identifies that woodlands have a significant contribution to make to economic growth, particularly in rural areas. Currently, forestry and wood processing industries contribute to the employment of around 13,000 full time equivalent jobs and generate about £460 million added value to the Scottish economy annually, while forestry tourism and recreation contribute a further 17,900 FTE jobs and £209 million Gross Value Added[12]. As well as direct economic benefits, there are also significant indirect impacts of woodlands and forestry on jobs, economic activity, house values, and quality of life.

Local authorities should therefore work closely with Forestry Commission Scotland and others to ensure a coherent and well co-ordinated approach to woodland expansion and the development of the forestry sector to maximise the benefits to local communities and the Scottish economy.

Forestry Commission Scotland, in conjunction with Scottish Enterprise and Highlands and Islands Enterprise, can provide advice on identifying strategic locations, industry clusters, and sites for industry expansion. This will be critical for the future growth of the forestry sector with increasing timber production and a rapidly developing biomass sector.

[11] www.scotland.gov.uk/topics/economy
[12] www.forestry.gov.uk/sfs

Development plans should therefore reflect the needs of the forestry sector and the role that it might play in sustainable economic growth locally, including the forestry and timber processing sectors. In some cases, plans might identify strategic locations where clusters of activity could be located.

The 7stanes mountain biking project

The 7stanes project was initiated in 2001 by Forestry Commission Scotland as one part of the response to the Foot & Mouth Disease that struck the south of Scotland in that year. Funding from Forestry Commission Scotland and public, private and voluntary sector partners was matched by European Regional Development Funds to help the local economy and tourism industry recover from the effects of Foot & Mouth disease by building on existing mountain bike trails at Mabie and Glentress, and developing a further 6 sites on the National Forest Estate across the south of Scotland.

The first phase concentrated on trail development for the more experienced riders and raising awareness of these trails. Phase 2 of the project aimed to "maintain and develop the south of Scotland as a world-class mountain biking destination; supporting tourism and rural business development and bringing health, wealth and enjoyment into the natural environment". In this phase of the project, more emphasis was also given to building a series of trails and infrastructure more suitable for families and beginners.

The phase 2 evaluation of the 7stanes project found that the key impacts across the 2 phases of the project can be summarised as follows:

- Just under 400,000 visitors between 2002 and 2007;
- A large 'non-local' market at 80%;
- Increasing quality ratings for the trails by visitors;
- 95% of visitors planning to come again;
- Net additional impacts of £9.29m to the south of Scotland economy; and
- A 50% increase in the number of riders bringing their children.

In addition, there has been increased local tourism business involvement, through the creation and promotion of a 7stanes business development pack, the formation of 3 mountain bike business networks and a commercial business web portal. This has led to increased private sector investment in marketing, property adaptations and new accommodation, and new services targeted at the mountain bike market in the UK and overseas.

The 7stanes trails are here to stay and Forestry Commission Scotland has given a long-term commitment to their maintenance. In addition, all of the public sector partners have continued to work together to grow local, national and international awareness of the trails. With increasing input and leadership from the private sector, the partners are now looking at long term sustainability to build on all of the opportunities created throughout the life of the project. In particular, to ensure that the communities and businesses in, and visitors to, the south of Scotland will continue to have some of the top trails in the world on their doorstep.

More information is available at: www.7stanes.gov.uk

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Woodlands also have a significant contribution to make in enhancing Scotland as a domestic and international tourism destination. The **Tourism Framework for Change**[13] identifies wildlife and adventure tourism as two of Scotland's key strengths and as a focus for marketing activities.

In preparing Development Plans, authorities will therefore wish to consider the future development of tourism in their area and the contribution that woodlands and associated developments might make to conserving, broadening and enhancing attractions for visitors.

© scottishviewpoint.com

[13] http://www.tourismframeworkforchange.info

Mull eagle watch

In the heart of the island of Mull, up a forest road on part of the National Forest Estate, sits a small, moveable timber building with large windows on one side, overlooking Loch Frisa and its surrounding woodlands. The building is a state-of-the-art bird viewing hide, owned by Forestry Commission Scotland, and the rangers who staff it are the public face of a project which is estimated to bring almost £2 million into the Mull economy every year. The chance to see White Tailed Sea Eagles in the flesh, and watch their nesting habits on CCTV is proving to be a strong visitor attraction.

Mull is currently the only location in Britain where the white tailed sea eagle can be viewed from an organised hide, accompanied by knowledgeable wildlife rangers. The hide has been specially adapted for viewing sea eagles and is sufficiently portable to allow the Mull Eagle Watch project to react to any change in nesting site by the birds.

Mull Eagle Watch is a collaboration between Forestry Commission Scotland, RSPB Scotland, the Mull & Iona Community Trust, Strathclyde Police and local volunteers, and is dedicated to continuing the successful breeding of sea eagles on the Isle of Mull through nest protection and public viewing. A pair of sea eagles has been nesting on the shores of Loch Frisa on Forestry Commission Scotland land since 1998 with development of the wildlife tourism potential of these magnificent birds starting in 2000.

The technology used on-site is impressive, with solar-panels powering flatscreen TVs and cameras, covering a number of local species, as well as the innovative wheels-off/caravan approach of the hide-itself. But it's the passion and knowledge of the rangers which really makes the visitor experience exceptional. Mull is developing as a real destination for wildlife viewing, on land and on the water, and the sea eagle project is developing into one of the island's key products.

More information is available at:
www.forestry.gov.uk/mullseaeagles

4.1.1 Sustainable construction

When it comes to constructing homes and buildings, wood from sustainable sources has the lowest energy consumption and CO_2 emissions of any building material. All new domestic buildings in Scotland now require an Energy Performance Certificate (EPC) and the Scottish Government is encouraging and financing good design and sustainable construction. As advocated in the **Sullivan Report**[14] and the Code for **Sustainable Homes**[15], greater use of timber in construction can help to deliver this and the **Centre for Timber Engineering**[16] at Napier University can provide further guidance and advice to local authorities, housebuilders, developers and architects.

Forestry Commission Scotland also recently commissioned and published two documents that offered guidance on sourcing, specifying and designing with local timber: **Sustainable Construction Timber** and **Designing Housing with Scottish Timber**[17]**.** The latter document includes details of a number of examples of new buildings that maximise the use of home grown timber for the structural frames, cladding and heat source.

© Gareth Hoskins Architects

© Alan Dickson, Rural Design

© Somerville Design

© Loch Lomond & The Trossachs National Park

[14] www.sbsa.gov.uk/sullivanreport.htm
[15] www.communities.gov.uk/planningandbuilding
[16] www.cte.napier.ac.uk
[17] Both documents available online at: www.forestry.gov.uk/sustainableconstruction

4.1.2 Timber transport

The transport of timber can be a contentious issue in many rural areas, as it often occurs in large volumes over a short period of time. Forestry Commission Scotland and the forestry sector are committed to working with communities and local authorities to reduce the impact of timber transport as far as possible on Scotland's roads, while maintaining a viable and flourishing forest industry.

The **Strategic Timber Transport Fund** is a £15 million fund available until 2011. To date the STTF has provided over £12 million to 30 projects providing timber transport solutions throughout Scotland. The scheme is aimed at providing mainly social and environmental benefits to lessen the impact of timber lorries. It is managed by Forestry Commission Scotland and is accessed by applying to the Strategic Timber Transport Scheme.

Scotland's Timber Transport Forum brings together Forestry Commission Scotland, other government departments, local authorities, forest owners, hauliers and timber processors to seek solutions to timber transport issues. Regional timber transport groups (RTTGs) perform a similar function at a regional level.

Agreed Routes Maps (ARMs) drawn up by councils in consultation with RTTGs, are a very useful tool in identifying the most suitable route for timber haulage. Data has been collected to provide the basic information for the development of these voluntary 'Agreed Routes', which can also be used to help inform council planning and spending on roads upgrading and maintenance. ARMs have been developed by RTTGs throughout Scotland.

Forestry Commission Scotland is working to develop new approaches to processing and using timber closer to its source to reduce timber miles. Forestry Commission Scotland is keen to work with local authorities to explore ways in which this can be achieved, and Conservancy offices can provide more information and advice.

Authorities should therefore consider future timber transport requirements and how development plans might encourage a reduction in timber miles. Development plans should be informed by ARMs and may need to reflect the need for strategic route improvements during the plan period.

Finding solutions to timber transport issues in Dunoon & Eskdalemuir

Two different solutions to timber transport problems in Argyll and Dumfries & Galloway have demonstrated the value of creative thinking and partnership working to enable significant economic and other benefits to be realised from existing commercial woodlands.

In Dunoon a partnership between five different landowners has delivered 5.6km of new in-forest road, an upgrade to 3.8km of existing forest roads and a new 8m span bridge to provide a new access/egress route for timber lorries as an alternative to three existing access points via minor, council maintained roads in residential areas. In addition, the new network of routes will link three forest areas under different ownership that previously had no existing cross-boundary access.

As a result some 423,300 cubic metres of timber harvested over the next 25 years will no longer need to be transported through Dunoon itself. Funding from the Timber Transport Fund of some £324,000 (as part of a total package of work costing £586,000) will also enable work to be carried out on forest walks in the area to contribute to local recreation and tourism.

In Dumfries and Galloway a partnership between the council and Forest Enterprise has delivered 4.2km of new forest haulage routes to enable timber lorries to bypass the village of Eskdalemuir and strengthening to three sections of the B723 from Watcarrick to Sandyford Bridge and the south of Boreland. In addition, a new 3km trail for walkers and cyclists has been created from the Kagu Samye Ling tibetan Buddist Centre to the Village of Eskdalemuir.

As a result of the £4.5 million project (£2.9 million of which came from the Timber Transport Fund) around 10,500 timber lorry journeys each year will be removed from the community of Eskdalemuir, while new recreational possibilities have been opened up with the creation of the new trail.

More information is available at:
www.forestry.gov.uk/sttf

4.1.3 Energy forests and biomass

Renewable energy is identified as a priority within the Government Economic Strategy, since it offers significant potential for delivering the Government's key objectives. The Scottish Government has therefore recently consulted on a Draft **Framework for the Development and Deployment of Renewable Energy in Scotland**[19] and published a **Renewables Action Plan**[20] in July 2009. What is clear is that woodland expansion will be necessary if biomass energy generation and wood fuel for heating are both to contribute significantly to targets for renewable energy production and reducing Scotland's CO_2 emissions.

4.1.3.1 Renewable energy

Increasing demand for woody biomass for energy, and pressure from existing markets for small round wood is resulting in the establishment of 'new' woodland types – short rotation forestry and short rotation coppicing – across Scotland. **Box 1** provides further information on these new types of 'energy woodlands'. Authorities will wish to consider the contribution that woody biomass energy production might play within the energy mix locally and the role the development plan can play in guiding the expansion of suitable woodland types and energy generating facilities.

Box 1: New types of 'Energy' Woodlands	
Short rotation coppice (SRC)	**Short rotation forestry (SRF)**
SRC is based on the use of fast-growing tree species repeatedly cut back (coppiced) and harvested for energy use at regular intervals (typically every 3-5 years) throughout the crop's lifespan of 15-20 years. The only species currently propagated commercially are willow and poplar. It offers an opportunity to help Scottish farmers diversify, whilst contributing to carbon savings in energy generation. There is a risk that with increasing demand from the energy market and demand for SRC exceeding supply, there may be increased imports of potentially unsustainably produced biomass if farmers do not take up this opportunity.	SRF is the cultivation of forestry for energy use using medium to fast growing species over an 8 – 20 year rotation. These might include both native and introduced species (e.g. alder, ash, birch, poplar, sycamore, eucalyptus and beech) and also cultivars. There is as yet no experience of commercial SRF planting in Scotland but Forestry Commission Scotland is establishing a series of demonstration plots across Scotland to monitor the way in which different species perform, and how they interact with the local environment. SRF provides a major opportunity for more broadleaved planting throughout Scotland in furtherance of the SFS aspiration of achieving 25% forest cover towards the middle of this century.

[19] Making Scotland a World Leader in Green Energy: www.scotland.gov.uk/topics/business-industry/energy
[20] www.scotland.gov.uk/topics/business-industry/energy/action

Wood pellet plant breathes new life into smelting site

Balcas have recently completed the construction and commissioning of a £24 million CHP and pelletising plant at Invergordon in the Highlands. The plant will produce around 100,000 tonnes of wood pellets a year, intended primarily for domestic use, and will utilise readily available local supplies of raw material from Highland woodlands. The pellets could heat the equivalent of around 25,000 homes a year and the plant will bring 38 jobs to the local area. The pelletising process will also use renewable energy from the CHP plant fuelled by wood chips, providing heat and electricity for the plant with an additional 5 MW capacity supplying the national grid.

The plant is being built on the site of the former Alcan Aluminium Smelting Plant and will cover around 5 hectares in total. This is a brownfield site and the proposal for a large-scale industrial facility on this site tied in with Highland Council's Structure Plan & Local Plan Policy. As a major renewable energy project, it also fitted well with the Council's wider goals of supporting sustainable renewable energy technologies. Due to the former use of the site, major remediation work had been carried out in order to make the site suitable for industrial use and it has been monitored to check on levels of contamination. Balcas were therefore required to put together a plan to deal with any potential contamination and put in place remedial action to ensure the site would be fit for use.

Balcas' policy in developing the project was to provide as much information as possible to local stakeholders and engage with the local community. As a result only two letters of representation were received in response to the planning application. The main areas of concern were the potential increase in traffic due to lorries bringing in around 300,000 tonnes of timber a year for the CHP and pelletising processes. On environmental quality, SEPA were in principle supportive of the renewable energy proposal, but required a number of issues on water, effluent, waste management and drainge to be address, and Balcas required a licence from SEPA under the Pollution Preventon & Control (Part B) regulations.

More information is available at:
www.hi-energy.org.uk/balcas-invergordon-biomass-plant.htm

4.1.3.2 Renewable heat

A recent report by the **Forum for Renewable Energy Development in Scotland (FREDS)**[21] considered the potential of renewable heat sources to meet future demand in Scotland and what action was needed to deliver on that potential. Indicative Heat Demand across Scotland has been mapped and recommendations made on how local authorities and housing associations can promote and support district heating using renewable technologies. FREDS is developing a supportive policy, planning and regulatory framework, as well as supporting the development of integrated local and regional community energy and utility cross-sectoral partnerships.

The Scottish Government's response to the report of the **Wood Fuel Task Force** agreed a series of actions to improve the mobilisation of woody biomass as a source of heat and energy. Some of these, particularly those relating to biomass waste streams, will impact on local authorities. The Task Force report also identified a need for more effective integrated planning to ensure that new wood-fuelled developments are located where timber is readily available and energy facilities where heat use is viable.

Forestry Commission Scotland Conservancy offices can provide advice on identifying 'strategic locations', and opportunities for Combined Heat and Power (CHP) and district heating, as well as technical advice on supply and demand aspects of the wood fuel supply chain. There are also a number of targeted funding streams to support the development of biomass heating, including: options within SRDP; the Scottish Community and Householders Renewables Initiative[22]; the Low Carbon Buildings Initiative[23]; and the Scottish Biomass Heat Scheme[24]. Long term support for renewable heat will be through a renewable heat incentive developed by the UK Government.

Forestry Commission Scotland is also funding a number of Energy Forestry Demonstration Sites that will provide a great deal of information in the coming years on the economics, environmental impacts and carbon life cycle of short rotation coppice and short rotation forestry.

Planning authorities should therefore liaise with Forestry Commission Scotland and other stakeholders to consider the need for 'heat mapping', the potential of wood as a source of renewable heat locally, and how development plans can help identify the most appropriate locations for CHP, district heating and other processing facilities to help deliver this aspiration.

[21] www.scotland.gov.uk/publications
[22] www.est.org.uk/schri
[23] www.lowcarbonbuildings.co.uk
[24] www.usewoodfuel.co.uk/scottishbiomassheatscheme.stm

District heating scheme in Oban leads the way

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© Vital Energi

West Highland Housing Association's (WHHA) housing development at Glenshellach in Oban is one of the first commercial-scale district biomass heating schemes in Scotland. The network provides heat to 89 homes, built in 2 phases, through underground pipework from a single, centralised 650 kW boiler, fuelled by wood chips. WHHA is a registered social landlord and is committed to providing affordable homes to those who need them while giving serious consideration to environmental issues. Each house on the network has an individual heat exchanger and associated meter operated by a smart card. This allows the tenant to control their heating costs through the smart card, which can be topped up at the local petrol station.

The whole housing scheme was designed with sustainability and minimisation of energy costs at its core. The houses themselves include passive solar gain, high levels of insulation, south-facing orientation and heat-recovery ventilation systems. Woodfuel is a key part of this design, using a local, renewable fuel source and providing cost savings to the tenants. Fuel proverty is an issue, particularly for some older local authority properties in Oban, and the Glenshellach site was not on the independent isolated gas network which serves part of the town. Woodfuel was therefore an attractive option compared to electric or oil based systems.

The site on which the development was built had been released and zoned for housing, so there were no major planning issues. However this is a relatively new technology in the UK and WHHA invested considerable resources to ensure they had the appropriate expertise and advice to successfully design, install and commission the system. The system was provided by Vital Energi, who also manage and maintain the pipework and boiler house. Overall, the woodfuel district heating network cost around £635,000 with funding provided by Communities Scotland, Fresh Futures, the Scottish Clean Energy Demonstration Scheme and WHHA.

Further information is available in the Scottish Government's Community Energy Toolkit
www.scotland.gov.uk/publications

4.2 Woodlands for people

Well-designed and managed woodlands can make a significant contribution to the quality of local environments, provide opportunities for healthier lifestyles and help create places where people want to live and work. As part of green networks, new and improved woodlands can contribute significantly to the regeneration of deprived communities. Woodlands also represent a dynamic and flexible learning resource that increasing numbers of schools and community groups are using to educate and engage children of all ages.

4.2.1 Strengthening communities and improving quality of life and sense of place

There is increasing evidence that high quality, accessible woodlands and greenspace can make a significant contribution to a sense of place and quality of life for local residents[25]. According to 2006 figures just under a quarter of the population (23%) lived within 500m of accessible woodland greater than 2 hectares in size, while just over two-thirds (68%) had an accessible woodland of greater than 20 hectares within 4 kilometres of where they live[26].

The Scottish Government's Woods In and Around Towns (WIAT)[27] programme provides the focus for woodland's contribution to improving the quality of life and sense of place in towns and cities by:

- creating new woodland;
- bringing neglected woodland into active management; and
- working with people to help them use their local woodland.

Around £24 million is available between 2008-2011 to deliver this programme for woodlands within 1km of settlements of 2,000 people or more and Forestry Commission Scotland actively seeks to work with authorities and others to identify opportunities where WIAT funding can add value to local woodlands.

Scotland has a vibrant Community Woodland sector with over 130 groups actively involved in managing 1.5% of Scotland's woodlands. Community involvement in woodland ranges from outright ownership through to small-scale informal activities, such as community litter picks. All help build community capacity and empower local groups to get involved in the future maintenance and improvement of their local environment. Volunteering in woodlands can help people gain skills and confidence and improve their health and well-being.

Community organisations can also acquire land managed by Forestry Commission Scotland to undertake a range of projects that support local development (in particular affordable housing and woodland crofts) through the National Forest Land Scheme (NFLS)[28].

[25] www.greenspacescotland.org.uk
or www.forestresearch.gov.uk/healthandwellbeing
[26] These statistics relate to the "Space for People" standard developed by the Woodland Trust and are two of the indicators used by Forestry Commission Scotland to measure progress towards our goals. **See:** www.woodland-trust.org.uk for more details.
[27] www.forestry.gov.uk/wiat
[28] www.forestry.gov.uk/nfls

© Greenlink

WIAT Before

© Greenlink

WIAT After

The bluebell woods of Drumchapel

The Bluebell Woods around Drumchapel in Glasgow are the setting for some innovative work bringing real benefits to local residents. The woods are owned by Glasgow City Council and managed in partnership with Forestry Commission Scotland. Drumchapel is a deprived urban area facing significant social challenges, as well as being the focus of a major programme of housing renewal.

Greenwork Mates is a project involving Forestry Commission Scotland and the Glasgow West Regeneration Agency (GWRA) which aims to improve the health and wellbeing of volunteers and guide them towards employment. Local residents accessing GWRA's training and back-to-work services undertake a range of work to manage and improve the local woods as a resource for the whole of the community. In doing so they gain valuable skills and experience that help them towards and into employment.

Greenwork Mates is only one of many initiatives relating to the woodland environment around Drumchapel that have been developed in partnership with the local community. Another example is the creation of a forest school locally, which helps teachers, parents and pupils use the woods for learning. The results of this active community engagement are that the woods are now better managed and better used and the local community has developed a stronger sense of ownership and pride in their local woods.

"I feel like I am making the environment better for everyone"

Greenwork Mates graduate

More information on Drumchapel's Bluebell Woods is available from Forestry Commission Scotland's Community Development Policy Advisor or via www.forestry.gov.uk/wiat

Authorities should therefore consider how development plans might support the role of woodlands, as part of green networks, in creating attractive, healthy, sustainable places and encouraging greater community involvement in woodland management.

Affordable housing in Glenmore forest

© John Gilbert Architects

© John Gilbert Architects

Two houses for key workers in a sensitive forest site in the heart of the Cairngorms National Park are demonstrating the potential of both the National Forest Land Scheme (NFLS) and the use of Scottish timber to meet housing needs in a sustainable way.

© John Gilbert Architects

This pilot scheme investigates the maximum use of timber sourced in Scotland in low-energy social housing on land acquired from Forestry Commission Scotland by Albyn Housing Association through the affordable housing option under the National Forest Land Scheme (NFLS). The design uses local timber, very high insulation levels and minimal impact materials to minimise the carbon footprint of the homes. The forest context and the traditional architecture of the area inform the layout and style of the houses and, around the site, new planting with native tree species will be mixed with existing mature trees around the clearing to maintain the forest setting.

Since 2005, land for 58 affordable housing plots have been made available through the NFLS. This part of the scheme allows Registered Social Landlords and other appropriate housing bodies to purchase land for the provision of affordable housing for those in housing need. Applicants must provide appropriate evidence of community consultation and assessment of local housing needs.

Further information is available at:
www.forestry.gov.uk/nfls

Community trust manages woodlands in partnership with FCS in Aberdeenshire

A pioneering community venture in Aberdeenshire is demonstrating just what can be achieved on behalf of local residents by a group of dedicated individuals working in partnership with landowners and the Forestry Commission.

Birse Community Trust (BCT) was established in 1999 with the purpose of promoting the common good of the inhabitants of Birse parish and to deliver wider public benefits. Conceived as a way of tackling local issues on behalf of the three scattered rural communities in Birse parish (Finzean, Ballogie and Birse) the trust has rapidly developed a broad portfolio of projects benefiting the community – including the management of local woodlands.

BCT's role in developing and implementing projects as a community business complements the roles of the Finzean, Ballogie and Birse Community associations that cover the parish and represent the views of the local community. BCT is guided by the issues identified by the Associations and works in partnership with them on its projects. BCT's first task on behalf of the community was to safeguard ancient shared rights over the 3,500 ha Forest of Birse Commonty and to ensure the sustainable management of the native caledonian pinewoods there.

Following that, BCT has taken on a range of other woodland related projects in the parish including the management of three water-powered wood mills, joint management of two Forestry Commission woodlands, and the management of Community Woods and a School Wood. In 2000 the Trust reached a pioneering long term agreement with Forestry Commission Scotland to jointly manage local woodlands to maximise benefits for the local community.

More recently, BCT was successful in its application to the National Forest Land Scheme to purchase Balfour and Slewdrum Forests (167 hectares). The acquisitions will help the Trust achieve its strategic objectives and provide vital income to sustain the Trust and its work. BCT now aims to use timber from its woodlands to develop a biomass heating system for their own buildings.

For further information on the work of the BCT please go to: www.birsecommunitytrust.org.uk
Information on Forestry Commission Scotland's work with communities is at:
www.forestry.gov.uk/communitiesscotland

4.2.2 Woodlands for recreation, health & wellbeing

Woodlands, and high quality green spaces are good for people's mental and physical health and general wellbeing. The presence of accessible woodlands and greenspace locally encourages and facilitates physical activity, which in turn has proven benefits for health and wellbeing. For example, recent research by Glasgow University[29] found that the gap in mortality rates between those on high and low incomes was considerably lower in 'greener' areas.

Improving the health of the Scottish population and, in particular, tackling health inequalities has increasingly been a major driver of Scottish Government policy in recent years. Most recently "***Equally Well***"[30] the report of the **Ministerial Task Force on Health Inequalities** has reinforced the need to take radical cross-cutting action to address the major inequalities in health that persist in Scottish society. The report specifically considers the contribution that improvements to the physical environment can make to tackling health inequalities and recommends that the Government and public bodies should take specific steps to encourage the use and enjoyment of green space by all, including an increase in the prescription of "green space use" by GPs and clinical practitioners. Planning authorities will wish to consider how the creation, protection and enhancement of woodland can help deliver on the recommendation that priority be given *"to the creation, retention and promotion of high quality green spaces as essential for health improvement"*.

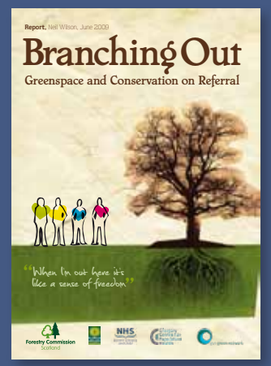
In addition, the National Planning Framework and Scottish planning policy emphasise the importance of developing green networks to improve quality of life and the health and wellbeing of the local population. There are clear links to the Government's ambitions to expand woodland cover and to increase the accessibility of high quality woodlands near to where people live and work.

Forestry Commission Scotland promotes wider public use of woodlands to benefit people's health and wellbeing and is supporting a range of initiatives to improve people's physical and mental wellbeing. The overall aim is to improve the health and wellbeing of the Scottish people through wider access to woodland recreation and relaxation. Ensuring that the benefits are equitably distributed and sustainable is a major focus of this work.

In drawing up development plans, planning authorities should therefore consider the need to strengthen and develop existing woodlands and greenspace networks, and the contribution that woodlands might make to improving quality of life and providing opportunities for informal recreation as part of their open space audits and strategies and core path planning.

[29] "The Lancet", Volume 372, Issue 9650, Pages 1655 - 1660, 8 November 2008
[30] www.scotland.gov.uk/health

Branching out in Castlemilk



Branching Out is an innovative service development offering conservation and greenspace on referral for people experiencing mental health problems in the Greater Glasgow area. It uses woodlands to help individuals cope with enduring mental health problems, and to progress towards flourishing mental wellbeing. During a twelve-week programme of outdoor activities, Branching Out participants are involved in a wide range of conservation work, bushcraft activities, environmental art, health walks and tai chi.

An evaluation of Branching Out was carried out after 12 months and the key positive outcomes included: low attrition rates: significant increases in physical activity by participants; and strong trends towards improvement in health and wellbeing for those with the poorest original scores.

As a result funding for the project has been extended and a range of other health boards and GPs are looking at the potential of using woodlands as a tool for improving mental health.

"I wasn't an outdoor person. I'd decided I'd go give it a week or so and the first week I absolutely loved it. And then the rest of it, I absolutely adored the course."

Branching Out participant..

Further information is available at www.forestry.gov.uk/woodsforhealth
or from the Health, Recreation and Access Policy Advisor at Forestry Commission Scotland

Forest School – smarter . . . and healthier

New research in central Scotland has shown that using local woods as a setting for learning for school children can have benefits for their physical health, as well as their educational achievement.

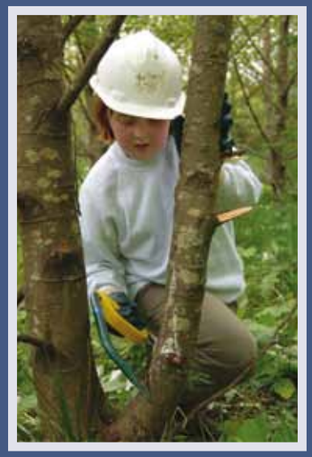
Woodlands have been used as an exciting and informal educational setting for learning since the mid 1990s under the Forest Education Initiative. Children attending Forest School typically spend a day a week for at least 12 weeks taking part in a range of academic and non-academic activities in local woods, and the experience has long been seen by teachers as a way of engaging some young people, who find more formal classroom settings a turn off.

However, recent research at the University of Edinburgh has also found that children are significantly more active during Forest School than on typical school days – including days when they had a physical education class. Levels of activity were found to be 2.2 times greater than those on 'active' school days, and 2.7 times greater than on 'inactive' school days.

Due to the types of activities undertaken during Forest School children, on average, exceeded the daily recommended one hour of moderate and vigorous physical activity. An additional benefit demonstrated by the study was the particularly positive effect Forest School had on levels of physical activity among girls – whom studies have consistently shown to be less active than boys. During Forest School, there was found to be no significant differences in the amount of activity between boys and girls.

These findings indicate that Forest School could contribute to the public health agenda by providing a novel way of introducing greater amounts of physical activity into the school day – as well as a way of re-engaging some young people in learning.

Forestry Commission Scotland supports Forest School through the Forest Education Initiative and is actively exploring how outdoor learning experiences can be broadened and developed through the new Curriculum for Excellence.



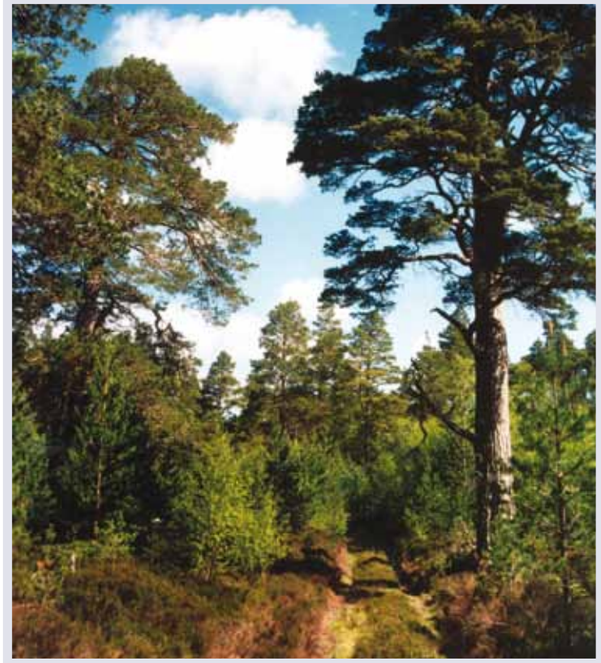
More details are available at: www.forestry.gov.uk/woodsforlearning
or from the Education Advisor at Forestry Commission Scotland.

4.3 Woodlands and the environment

Scotland's woodlands have major environmental value, particularly in the context of our history of extensive deforestation, over many centuries. They are particularly important for biodiversity, supporting a disproportionately high proportion (36%) of threatened species in Scotland, as well as 7 UK priority habitat types. They are also a key element of our landscapes and our cultural heritage and can help to protect our soil and water quality, contribute to flood management and provide shelter for farmland and riparian habitats.

4.3.1 Woodlands and biodiversity

Priorities for action for woodland biodiversity in the Scottish Forestry Strategy are intended to help achieve the objectives of the **Scottish Biodiversity Strategy**[31] and the **UK Biodiversity Action Plan**[32]. These include action to safeguard and enhance sites designated for nature conservation under EU, UK and Scottish law[33], and action for priority habitats and species in the wider landscape. The planning system has a critical role to play by taking into account biodiversity and ecosystems in development planning and management.



© Scott McG Wilson

All public bodies are subject to a duty under the Nature Conservation (Scotland) Act to further biodiversity conservation and **Woods for Nature**[34] sets out Forestry Commission Scotland's biodiversity programme for 2008-11. Improving the condition of designated sites and the expansion, enhancement and restoration of priority native woodland habitats are high priorities for action. More recently a series of **species action notes**[35] have been produced summarising the action being taken to preserve and enhance populations of six key woodland species in Scotland.

[31] www.biodiversityscotland.gov.uk
[32] www.ukbap.org.uk
[33] A full list of natural heritage designations is contained in the following guide: www.scotland.gov.uk/library/documents-w4/nhd-00.htm
[34] www.forestry.gov.uk/woodsfornature
[35] www.forestry.gov.uk/speciesactionnotes
[36] www.forestry.gov.uk/scotland
[37] www.snh.gov.uk/land-and-sea/managing-the-land

The development and enhancement of native woods will help develop **forest habitat networks**, as part of integrated habitat networks, to enhance both core habitat and ecological connectivity and thereby help conserve viable ecosystems in the face of environmental pressures, including climate change. A number of regional forest habitat networks plans or opportunity analyses have already been produced, many using modelling techniques developed by Forest Research (FR), and more are planned. Advice on developing habitat networks is available from both Forestry Commission Scotland[36] and SNH[37].

Comprehensive new information and GIS maps on the composition and conservation value of native and ancient woodlands will become available over the period 2009-2013 from the **Native Woodlands Survey of Scotland**, led by Forestry Commission Scotland (see Annex B for further details).

Some key woodland species need extensive habitat areas to be managed sympathetically for their needs (notably red squirrel, black grouse and capercaillie) but many other species can be accommodated successfully as part of woodland management. Many woodland species are legally protected and woodland therefore needs to be planned and managed to reflect this. Advice on managing woodlands for important species can be obtained from Forestry Commission Scotland and SNH.

Many non-native planted forests can also develop significant biodiversity value as they become more structurally diverse with time and appropriate management. They can often support areas of important habitats or species, and should be planned as part of wider forest habitat networks, linking to areas of native woodlands. The Scottish Forestry Strategy encourages continued diversification of planted woods and forests and authorities may wish to consider how forest and woodland strategies can further promote such goals.

In addition, Scottish planning policy confirms that woodland removal, particularly of high conservation value woodland, should only be permitted where it will achieve significant and clearly defined additional public benefits. It also emphasises the importance of developing green networks for people and wildlife.

Planning authorities may therefore wish to consider how development plans and forestry and woodland strategies can identify and protect high biodiversity value woodlands, as well as opportunities for expansion, restoration or enhancement of native or biologically diverse woodlands to help encourage the development of forest habitat networks.

In addition, in 2008 Forestry Commission Scotland and FR published a report modelling potential forest habitat networks throughout Scotland, centred on woodlands of high conservation value. This can be used as a basis for local/regional forest habitat network plans and to target native woodland expansion or conversion from non-native woods. Some Forest Habitat Network reports and plans also consider the balance with other habitats and land use, while in some areas work has been done to model Integrated Habitat Networks . Where these resources exist they should inform development plans.

Native woodland expansion in the Ochils

© Woodland Trust

In 2000 the Woodland Trust Scotland began a landscape scale, native woodland creation project at Glen Devon in the Ochil Hills, Perth and Kinross. The project arose directly as a result of the Scottish Forest Alliance partnership, the prime objective of which is the regeneration and expansion of native woodlands in Scotland. The project comprises three sites (Glen Quey, Glen Sherup and Geordie's Wood) and covers an area of 1,233 hectares. These upland sites are gradually being converted into new native woodland and associated habitats, through the phased removal of livestock followed by tree planting. Extensive tree planting has been carried out up to 2008 and approximately 850 hectares, equivalent to 70% of the land, is now covered by young broadleaved trees and woodland.

Prior to acquisition of the land, sheep farming was the main activity, and several centuries of grazing had resulted in a loss of habitat diversity and associated wildlife. Grazing continued on some of the lower improved grassland under annual grazing lets until 2008 when it was phased out and tree planting began.

The three principle neighbouring land uses are sheep farming, plantation conifer forestry, and water management (public supply and fisheries). These land uses are complimentary and interaction with neighbours is often mutually beneficial. The balance of land use in the area has shifted in favour of woodland from sheep farming since the 1960s in particular, and as with other areas of Scotland close to population centres, the emphasis on access and amenity values in woodland management has increased. Sheep farming however remains an important land use, especially in the higher central Ochils, and has the potential to maintain or create important semi-natural open habitat.

Over the duration of the project and into the future, the local landscape will change significantly as the Glen Devon new native woodland establishes, linking the existing adjacent conifer woodlands to create an area of more continuous but varied forest landscape. The high tops will remain open above a fragmented tree-line and access to the hillside has been substantially improved.

Further information is available at
www.woodlandtrust.org.uk

The Edinburgh and Lothians Forest Habitat Network Partnership (ELFHNP)

ELFHNP was established in 2008 as a partnership between Forestry Commission Scotland, SNH, the 4 Lothian councils, Edinburgh & Lothians Greenspace Trust, Central Scotland Forest Trust and the Woodland Trust Scotland. It aims to provide a more co-ordinated approach to the development of forestry throughout the Edinburgh and Lothians region through embracing the concept of habitat networks and promoting the associated social and ecological benefits that these can provide. The aim of creating a quality environment will be achieved through co-ordinated action by communities, agencies and businesses working together.

The Partnership's vision is that "Edinburgh and the Lothians will have attractive, biodiverse networks of forest, woodlands, greenspaces and semi natural habitats. These networks will contribute to the development of a strong local economy and provide diverse benefits for local residents including recreation, health and well being. Local people will be actively involved in the planning, creation and development of these networks, which will be key assets for the community."

A Forestry Framework has been developed to guide a programme of action by the partners. It aims to reverse the process of habitat decline through increasing the amount of new woodland planting across the Region and through providing increased linkage of semi-natural habitats on a landscape scale.

The delivery of the Framework will require a co-ordinated approach and the Partnership are working to facilitate delivery of the vision through:

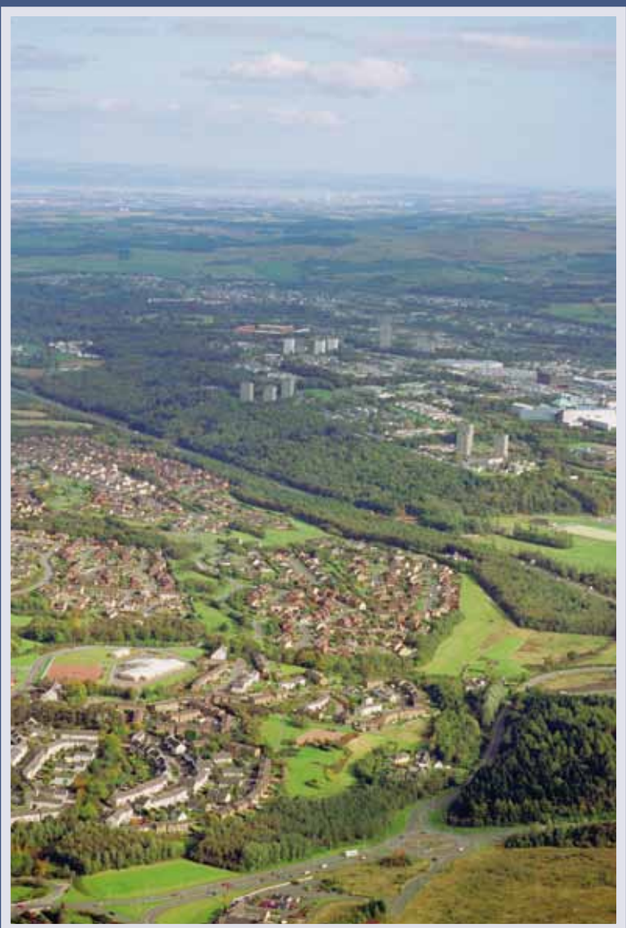
- The provision of detailed habitat network maps for priority areas;
- Incorporation of the forest habitat network concept into the Strategic Development Plan for the region (SESplan) and Local Development Planning;
- Integration of the aims of the Partnership with Regional Priorities for the Scottish Rural Development Programme;
- Developing new approaches to planning gain and habitat banking initiatives; and
- The integration of social and environmental benefits with habitat improvements.

The Edinburgh and Lothians Forest Habitat Network Partnership will advise planners, developers and land managers on managing and enhancing the region's rich woodland heritage. The Partnership emphasises the importance of considering habitat linkages when assessing new developments and incorporating provision of appropriate green infrastructure at the masterplanning stage. Through careful planning it is hoped that the concept of Forest Habitat Networks can be integrated within development sites and that connectivity between woodland areas can be positively enhanced even within areas

prioritised for significant development. On the contrary, it is accepted that poor planning and the cumulative impact of numerous planning decisions can destroy habitat connectivity and lead to increased fragmentation of the network.

New areas of woodland planting and greenspaces will also provide significant benefits for local residents including path networks, active play spaces and attractive environments in which people can unwind.

There's more about the Edinburgh and the Lothians Forest Habitat Network at www.elfhnp.org.uk



© P & A Macdonald /Aerographica

4.3.2 Woodlands and landscape

Scotland's landscape is a visual, physical and cultural resource highly valued by both its residents and visitors. It is an essential aspect of our sense of place and belonging, contributing to our health and wellbeing and quality of life. It is also an integral part of our national and community identity, reflecting our history and culture and plays a fundamental role in drawing visitors to our country.

The UK has both signed and ratified the European Landscape Convention (ELC) which advocates a people centred approach and emphasises the importance of **all** landscapes – urban and rural, designated and undesignated, in areas of high quality and in degraded areas. The Convention's contemporary definition of 'landscape' is:

'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (Article 1, ELC)

Scotland has a very high number of distinct landscape character types for its size, all contributing towards the diversity of our relatively small country. Both the UK Forestry Standard and the SFS make particular mention of the role of landscape character in helping to guide decisions about the location and design of forests and woodlands. A range of national and local landscape designations exist (for example, National Scenic Areas) and should be included in the list of sensitivities used to inform the preparation of forestry and woodland strategies (see section 4.3.2). In urban areas, well planned and managed trees and woodlands can enhance sense of place and quality of life, underpin property values, contribute to economic regeneration and help attract investment.

The SNH suite of Landscape Character Assessments (LCA) are an established and recognised tool that can help ensure that forest and woodland proposals:

"Recognise local landscape characteristics and geodiversity, safeguard sensitive landscapes, and harness the potential of forestry to bring landscape improvements through high standards of forest design and operation planning" (SFS, 2006)

Copies of the suite of LCAs can be downloaded from the SNH website[39].

The SNH suite of LCA considers landscape character at the local to sub-regional scale. In developing proposals at the forest scale, forest managers are encouraged to consider the preparation of an holistic Forest Plan that shows how the forest will develop over a 20 year period. A key aspect of the forest design and planning process is for the forest manager to consider landscape character and the likely impact of the forest over its lifetime on that character at the local scale.

The Forestry Commission Forestry Practice Guide 'Forest Design Planning – *A Guide to Good Practice*'[40] provides guidance on the development of a Forest Plan and specifically, the assessment of local landscape character.

Planning authorities should therefore consider how development plans and forestry and woodland strategies can reflect the contribution of existing woodlands to local landscape character and value, and the potential contribution of future woodland creation, restructuring and, in some exceptional cases, removal.

[39] www.snh.gov.uk/publications-data-and-research
[40] www.forestry.gov.uk/publications

4.3.3 Woodlands and the historic environment

Scottish Planning Policy emphasises the need for development plans to provide a framework for the protection, conservation and enhancement of all elements of the historic environment. Development planners are also encouraged, where necessary, to assess the capacity of an area for, and sensitivity to, change and this will be an important consideration in preparing development plans and new forestry and woodland strategies. Guidance on planning and archaeology can also be found in PAN42[41].

The UK Forestry Standard recognises that sustainable forest management must take due account of cultural, historic and designed landscapes, and the protection of heritage features. The SFS also emphasises the need for forest managers to identify and safeguard significant evidence of the historic environment, including historic landscapes and historic or listed buildings, through the forest design planning process and by sensitive management of forest operations. The policy statement **Scotland's Woodlands and the Historic Environment**[42] provides further detail on Forestry Commission Scotland's position on this subject.

Information on the historic environment is primarily held by local authority archaeologists through their Sites and Monuments and Historic Environment Record systems and they should be consulted for known information on historic environment sensitivities (including cultural, historic, designed landscapes and setting, and ancient woodlands and forests) when preparing development plans and forestry and woodland strategies. Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland, for example, through PASTMAP[43] and the Historic Landuse Assessment[44], also hold some information on heritage features locally. Anyone interested in planting or managing woodlands can obtain information on the wide range of resources relating to the historic environment in Scotland through the Forestry Commission Scotland guide **Historic Environment Information** and **Advice for Forest and Woodland Managers in Scotland**[45].

In guiding future woodland expansion development plans and woodland strategies should therefore have regard to the need to protect, and where possible enhance, the historic environment.

[41] www.scotland.gov.uk/topics/built-environment
[42] www.forestry.gov.uk/histenvpolicy
[43] www.rcahms.gov.uk/pastmap
[44] www.hla.rcahms.gov.uk
[45] www.forestry.gov.uk/histenvpolicy

World Heritage Site protected as part of forest planning in central Scotland

The Roman presence in Scotland is marked today by field archaeology that represents some of the best surviving examples of Roman military architecture in Europe. Recognising this, the **Antonine Wall** received World Heritage Site status in 2008, as part of the 'Frontiers of the Roman Empire World Heritage Site'. Although non-statutory, World Heritage Sites are described by UNESCO as exceptional places of 'outstanding universal value' and 'belonging to all the peoples of the world'. Under the World Heritage Convention, once a Site is inscribed, member states have a duty to protect, conserve and present them for future generations.

The Antonine Wall is therefore protected by scheduling under the Ancient Monuments and Archaeological Areas Act (1979) and through the Town and Country Planning (Scotland) Act 1997. Its buffer zones have long been protected through their designation as countryside or green belt land by the local authorities in Structure and Local Plans.

In addition, the Antonine Wall World Heritage Site Management Plan 2007 – 2012 was published as a required part of the bid for World Heritage Site status. The objective of the Management Plan is to

achieve an appropriate balance between conservation, access, sustainable economic development and the interests of the local communities. As part of the management plan, the buffer zones were re-defined around the surviving sections of the wall – typically extending one to two kilometres to the north and a shorter distance to the south of the wall.

The Central Scotland Forest Strategy and (on the national forest estate) the Scottish Lowlands Forest District Strategic Plan both reflect the Wall's status and the Site Management Plan to ensure that forest management and new planting proposals which may impact on the Wall and its buffer zones deliver environmental benefits and provide recreational and educational opportunities. The Scottish Lowlands Forest District Strategic Plan also includes the specific proposal to work with Historic Scotland and local interest groups to promote interpretation and countryside access connected with the Antonine Wall.

To this end, a detailed archaeological survey was commissioned by Forestry Commission Scotland of the well preserved moorland stretch of the Antonine Wall at Croy Hill, an historic monument located on the national forest estate but in the care of Historic Scotland. This survey has provided baseline information to inform future forest and recreational management - and resulted in a proposed grazing regime that will benefit both the archaeological earthworks and the biodiversity of the pasture. It is intended to manage the Croy Hill area as lowland grassland open habitats, encouraging in places the spread of native woodland and respecting and enhancing the stretch of the Antonine Wall contained within, in part by reintroducing a low density cattle grazing regime.

The Central Scotland Forest Strategy and the Scottish Lowlands Forest District Strategic Plan therefore both act alongside external local authority strategies and initiatives to provide forestry and environmental opportunities alongside sustainable economic development and recreational improvement. At a smaller scale, forest planning and management is thus informed by wider policy and strategy: from UNESCO World Heritage Site to local Forest Plan.

More details are available at: www.antoninewall.org
or from Forestry Commission Scotland's archaeologist.

World War II Defences presented in their natural context in Lossie

Archaeological and historical features do not belong to archaeologists and historians alone. They represent a shared cultural resource, make an important contribution to our economy, are a critical part of the wider contemporary landscape and are part of the legacy that all land managers hand on to their successors. They can play an important role in the education of local children; provide a sense of place and historical context for the local community; and play a significant role in Scotland's tourist industry. Identifying appropriate and significant elements of the historic environment for presentation (and associated active conservation management) is an important role of any Strategic Plan framework and associated individual Forest Plans.

The well-preserved stretch of WWII coastal defences within Lossie Forest on the national forest estate are just one example of how woodlands can help preserve and present heritage features. Most of the WWII defences (comprising several thousand anti-tank cubes, numerous pillboxes and a coastal gun battery) were built over the course of only a few months in 1940, in response to the German invasion of Norway and the threat of the invasion of Britain. Their construction was in part forward planning and in part a very public show of defiance. The majority of WWII defences were removed after the war – with farmers paid a 'bounty' of £5 per pillbox. But some can still be found, particularly those that have been protected by their location within woodlands. More recent history such as this is often of great importance in engendering a pride of place within the local community - but planners and land managers must take action now to ensure its survival and active interpretation.

The majority of the coastal defences in Lossie Forest are situated on the stony beach, although the coastal gun battery and a short stretch of inland defence (comprising anti-tank cubes and pillboxes) are set within thinned mixed commercial coniferous plantation. Forestry Commission Scotland is therefore taking the opportunity to present the archaeology within the very woodland context that has ensured its survival, using existing woodland paths. An archaeological survey of the Lossie Forest block was commissioned, plotting and describing any historical features identified. A detailed drawn survey of the coastal gun battery was also undertaken, including a condition report and site management recommendations. Both surveys have informed future forestry management through the local forest design plan and a suite of reconstruction drawings have been developed to aid site interpretation.

More details are available at:
www.forestheritagescotland.com

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4.3.4 Woodlands and water

There is a growing recognition that forestry and woodlands have an important role to play in helping to protect Scotland's water resources. A number of European Commission Directives aim to protect the environment, including the Water Framework Directive, the EC Flood Directive and the Nitrates Directive. Woodlands and trees can help to achieve the objectives of these Directives through:

1. Ensuring that Scottish woodlands are managed to the standards set out in the UK Forestry Standard and the supporting Forests & Water Guidelines (see Annex A).
2. Contributing to measures within River Basin Management Plans to help meet the overarching Water Framework Directive aim of achieving good status of all water bodies by 2015.
3. Offering a suite of natural flood management measures, including floodplan and riparian woodland to contribute to sustainable flood management at a catchment scale.
4. Establishing appropriate types of woodland in Nitrate Vulnerable Zones, including buffer strips along water bodies or targeted planting around wells and boreholes to assist in preventing nitrate leaching.

Water quality

Well planned and well managed woodlands can make a positive contribution to addressing a range of water quality issues across Scotland by:

- creating a semi-permanent land cover, and therefore minimising soil disturbance;
- providing physical shelter, which can reduce wind erosion and subsequent sedimentation of water courses;
- increasing the entry of rainwater into the soil, delaying drainage to streams and reducing run-off and erosion.

Riparian woodlands can particularly benefit water quality by:

- reducing applications of fertiliser and pesticides (diffuse pollution) associated with alternative land uses such as more intensive forms of agriculture;
- helping to stabilise river banks;
- moderating the riparian microclimate and reducing thermal stress;
- excluding livestock; and
- creating diversity in channel form and water depth through the action of coarse woody debris.

Natural flood management:

Woodlands also have a role to play in natural flood management and sustainable urban drainage schemes. Techniques include reforestation of hillslopes and gullies and the management of large woody debris in watercourses, alongside restoration of upland wetlands, lowland wetlands and floodplains, and the restoration of river channel meanders. Modelling work and field-based evidence indicates that the presence of woodland can increase hydraulic "roughness", slowing down and reducing run-off by increasing water storage and delaying drainage to streams, which can help to desynchronise multiple flood peaks within a catchment.

Planning authorities should therefore consider the role that woodlands and forestry can play in tackling a range of water quality and flooding issues locally. Authorities should take particular account of the Flood Risk Management (Scotland) Act and the need to undertake preliminary flood risk assessments, prepare flood hazard and risk maps and Flood Risk Management Plans. Making appropriate links between forestry and woodland strategies and River Basin Management Planning will also be important (see section 3.4).

4.3.5 Woodlands and soils

The **Scottish Soil Framework**[46] has a vision for soils to be recognised as a vital part of our economy, environment and heritage and to be safeguarded for existing and future generations. Sustainable forest management can help to achieve this vision through the principles set out in the UK Forestry Standard and the supporting Forests & Soils Guidelines (see Annex A).

Forestry Commission Scotland aims to work closely with Local Authorities to ensure that the beneficial effects of forestry and woodlands on soils are optimised by:

[46] www.scotland.gov.uk/publications

- using woodland to provide a semi-permanent land cover and to provide physical shelter to minimise soil disturbance and reduce erosion;
- reducing soil contamination through avoiding the high inputs of fertilisers and pesticides associated with more intensive forms of agriculture;
- restoring soil organic content, particularly on brownfield sites and mineral soils;
- indirectly helping to reduce the incidence of landslides through the reduction of grazing pressure by appropriate woodland creation; and
- the use of lower impact silvicultural systems, such as continuous cover forestry, in appropriate locations.

At the same time Forestry Commission Scotland seeks to ensure that any potential negative impacts of forestry on soils are minimised by:

- implementation of the Forests & Soils Guidelines;
- avoiding unnecessary soil disturbance, particularly on soils of high organic content or areas prone to soil instability; and
- focusing woodland expansion away from deeper peat soils such as:
  - active raised bog and degraded bog capable of restoration to active status;
  - extensive areas (exceeding 25ha) of active blanket bog averaging 1m or more in depth; and
  - any associated peatland where afforestation could alter the hydrology of such areas.

(The Forestry Commission Guideline Note "***Forests and Peatland Habitats***"[47] provides further details).

Planning authorities may therefore consider how development plans and woodland strategies might guide the future expansion and development of woodlands locally to maximise beneficial and minimise negative impacts on soil resources.

4.3.6 Woodlands and land restoration

Forestry Commission Scotland is currently a statutory consultee on the aftercare plans for mineral workings, where woodland or forestry is a proposed land use and has considerable experience of restoring former mineral extraction sites to both amenity and productive woodland. In addition, the **Urban Regeneration and Greenspace Partnership**[48] led by Forest Research has a wealth of experience and can provide advice on restoring a range of sites, including vacant, derelict and contaminated land, to woodlands and greenspace.

Scottish Planning Policy on minerals and open cast coal encourages operators to consider after uses that result in environmental improvement, rather than simply restoring land to its previous state, while policy on the development of green networks advocates the restoration of vacant and derelict land to 'green' end uses. Forestry Commission Scotland anticipate that there is considerable potential for the creation of woodland on former extraction or industrial sites to contribute to both habitat networks and green networks and encourages early engagement by both developers and planning authorities to identify potential opportunities.

Planning authorities can also play a positive role in encouraging operators to consider the creation of woodlands and other greenspace as part of an aftercare regime.

[47] www.forestry.gov.uk/publications
[48] See www.forestresearch.gov.uk/landreclamation for further details

Woodland makeover for former colliery site boosts local property market

The development of a community woodland on the former site of Bold Colliery in St Helens in north-west England has been shown to have had a direct impact on the regeneration of the area, as well as significantly boosting local property prices.

Independent research by the District Valuer[49], which took account of other variables and the general trend in property values, found that the boost to the image of the area associated with the 'greening' of the derelict site had directly enhanced existing property values in the surrounding communities by approximately £15 million. Those properties closest to the former colliery site experienced the highest growth in values. In addition, the development of the community woodland resulted in new development to the value of £75 million being attracted to the area and the delivery of 600 new homes.

The findings echo those from previous studies in the US and elsewhere that have demonstrated the benefits for local housing markets accruing from investment in trees, woodlands and greenspace and the value of restoring vacant, derelict, contaminated or underused land, as well as former mineral extraction or landfill, sites to woodland. This is in addition to a variety of well documented other economic and social benefits demonstrating the value of investment in trees and woodlands as part of green infrastructure[50].

Further details are available from the Land Regeneration and Urban Greenspace team at Forest Research or from: www.forestresearch.gov.uk/landregeneration

[49] www.forestresearch.gov.uk/pdf/englandnwecboldcollieryreport.pdf
[50] For example see naturaleconomynorthwest.com

4.4 Woodlands, forestry and climate change

Forestry has a key role to play in the current **Scottish Climate Change Programme**[51] with a specific target to deliver annual carbon savings of 0.6MtC by 2010, rising to 1MtC by 2020. In addition, the **Scottish Climate Change Act 2009** sets a target of achieving an 80% reduction in Scotland's emissions by 2050, and an interim target of a 42% reduction by 2020. Forestry is expected to have a significant role in helping to **mitigate** climate change and achieving the Bill's target, particularly through:

- carbon sequestration and the creation of carbon sinks (through woodland creation and improved controls on permanent woodland removal);
- the substitution of fossil fuels with near carbon-neutral wood for energy and heat production; and
- substituting near carbon-neutral timber for high energy-embedded materials such as concrete and steel.

Trees, woodlands and forestry also have a potentially significant role to play in helping Scotland **adapt** to the impact of climate change through:

- Restoring and expanding lost habitats (native woodland) to improve their overall resilience to future changes;
- Helping to facilitate ecological adaptation, such as restoring functional habitat connectivity for woodland species dispersal by the creation or expansion of forest habitat networks;
- Delivering ecosystem services as part of broader landscape/catchment approaches to natural resource management. Examples include:
    - creating new, and managing existing, woodlands as part of natural flood management schemes (for example, through the strategic placement of floodplain woodlands, through targeted actions to help 'slow the flow; within existing woodlands, and as part of green networks for sustainable urban drainage schemes);
    - helping to protect water and soil resources against future climatic extremes (for example, through appropriate tree planting to stabilise slopes and river banks or to regulate water temperatures in vulnerable watercourses);
    - managing diffuse and point source ammonia emissions.
- Helping to provide sustainable urban climate control measures by the management and strategic planting of trees in cities and towns to moderate high temperatures and to reduce winter energy loss from buildings by reducing wind speeds;

A recent report for the Forestry Commission assessed the potential role of UK forestry in combating climate change[52] while Forestry Commission Scotland recently published its **Climate Change Action Plan**[53] setting out what action it intends to take to increase the contribution and response of Scottish forestry to the challenges of climate change. It focuses on five key areas: protecting and managing existing forests; woodland creation (including energy crops); adapting to climate change (with a major focus on countering woodland fragmentation through Forest Habitat Networks); sustainably produced wood for energy and construction; and reducing the forestry sector's carbon footprint (e.g. through improving timber transport infrastructures).

Planning authorities should therefore consider the contribution that trees, woodlands and forestry can make to local strategies to mitigate and adapt to climate change.

[51] www.scotland.gov.uk/climatechange
[52] www.forestry.gov.uk/readreport
[53] www.forestry.gov.uk/ccapscotland

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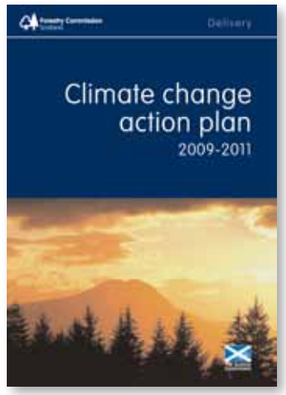

5. Woodlands & development management

This section provides advice to planning authorities on the consideration of forestry and woodlands (their protection, creation, restructuring and removal) in development management. It also provides advice on how to involve Forestry Commission Scotland in development management decisions.

5.1 Consultation arrangements

Currently Forestry Commission Scotland is a statutory consultee on the aftercare plans for mineral workings, where woodland or forestry is a proposed land use. Forestry Commission Scotland is also a consultee in the Tree Preservation Order process and is regularly consulted on section 36 and 37 energy consents applications.

The preparation of an up to date forestry and woodland strategy, in partnership with Forestry Commission Scotland and other local stakeholders, will help ensure policies are in place locally to help a planning authority take routine decisions on planning applications affecting woodlands and trees. Nevertheless, Forestry Commission Scotland encourages consultation with the relevant Conservancy office on applications likely to significantly affect woodlands and trees.

In return, Forestry Commission Scotland seeks the views of planning authorities (as well as SNH, SEPA and Historic Scotland) on planting and felling proposals within their area before deciding whether to approve applications and/or to call for an Environmental Impact Assessment.

Currently, Forestry Commission Scotland sends local authorities copies of applications of 10 hectares or more of new planting (5 hectares in a National Park), and may also consult on smaller cases where local consultation arrangements exist. The planning authority has four weeks to consider the details of the application and let Forestry Commission Scotland have their comments.

During the four week consultation period, the application appears on the Forestry Commission Scotland Public Register for members of the public, landowners and interested organisations to also view the proposals and provide comments.

Objections to a proposal are normally resolved satisfactorily during the consultation stage. However when there is an unresolved objection from a planning authority (or another statutory consultee) the Forestry Commission Scotland refers the case to the Regional Advisory Committee (RAC).

Planning authorities may therefore wish to consider agreeing a protocol with the relevant Forestry Commission Scotland Conservancy office, setting out how they will consult with each other on development and planting proposals within their area, and the relevant timescales and standards expected.

Box 2: The Forestry Commission and felling licences

The Forestry Act (1967), as amended, requires landowners to apply for a licence for the felling of growing trees. Certain types of felling are exempt, depending on:

- the location (for example, in an orchard or a designated open space);
- the type of work and the volume or diameter of felling being undertaken (for example, pollarding or felling less than 5 cubic metres per calendar quarter);
- whether permission is already given under other legislation or felling is required due to another legal or statutory requirement.

One of the principle exemptions relates to planning permission – i.e. a felling licence is not required where the felling is authorised by **full** planning permission. However, the approved permission must expressly specify tree felling, and this should also be recorded on the map/plan.

Further information on the felling licence system, including full details of exemptions are available at: www.forestry.gov.uk/fellinglicences
Forestry Commission Scotland **Conservancy offices can also provide detailed advice.**

5.2 Trees and woodlands in development management – relevant considerations

Planning authorities are encouraged to have regard to the potential impact of development proposals on trees and woodlands under the following three headings.

Creation – is there potential as part of the development (particularly major developments) to incorporate new planting/woodland creation into the masterplan/design for the site? If so, how would it relate to existing green networks and habitat networks, and how might new planting help improve functional connectivity or buffer existing ancient trees and woodlands of high nature conservation value? If new planting is proposed what is the most appropriate choice of species (future climate predictions will be an important consideration), size of tree and future management? How will new trees and areas of woodland be maintained post development?

Protection – will the development impact on existing trees and woodlands that benefit from legal protection (for example, a heritage designation or TPO)? If trees and woodlands are to be retained, how will they be protected

during any works and/or returned to their pre-development condition?

Removal – does the development involve the loss of existing trees and woodlands? If so then proposals should be considered against the advice in section 5.3.

This may inform the layout and design of the development and the drafting of planning conditions or agreements.

5.3 Development proposals involving woodland loss

Under section 159 of the Town and Country Planning (Scotland) Act 1997, planning authorities have a duty to ensure that, whenever appropriate, planning permissions make adequate provision for the preservation or planting of trees.

As noted in section 2.1, Scottish Ministers **Policy on Control of Woodland Removal**[54] was published in 2008. This signals a strong presumption in favour of protecting Scotland's woodland resources, unless removal will achieve significant and clearly defined additional public benefits. In appropriate cases a proposal for 'compensatory planting' may form part of the balance, but there is a particular presumption against the removal of woodlands of high nature conservation value (for example Ancient Semi-natural Woodland, due to its irreplaceable nature). For woodland removal associated with development, it is expected that compensatory planting will normally be undertaken at the developer's expense.

In considering development proposals involving woodland loss planners should therefore:

- assess the current and likely future public benefits (social, economic and environmental) deriving from the existing woodland;
- determine whether the development should be modified or the woodland redesigned to avoid or reduce woodland loss (e.g. by accommodating new development within 'open space' within woodlands);
- where woodland loss cannot be avoided, assess the public benefit of the proposed development to see if it would justify the loss of the woodland;
- consider whether any loss of woodland should be mitigated by compensatory planting; and
- consider whether any felling consent needs to specify the timing of forestry operations to avoid disturbance to wildlife present on the site[55].

If an authority decides that a development proposal involving woodland loss should receive planning permission, it should specify the precise area of felling permitted and ensure that planning conditions and/or agreements will ensure the provision of any compensatory planting which is required.

[54] www.forestry.gov.uk/woodlandremoval
[55] For example, see: www.forestry.gov.uk/wildlifeandforestops

Monitoring of Woodland Loss

Changes to woodland cover as a percentage of total land area will be monitored periodically at a national level through the **National Inventory of Woodlands and Trees** and the **Native Woodland Survey of Scotland** (see Annex B). Forestry Commission Scotland will also seek to monitor woodland loss to development informally through our involvement in the development management system.

Planning agreement delivers new community woodland for North Lanarkshire residents

© Central Scotland Fores Trust

Forward thinking on behalf of a developer, landowners and planning officers has resulted in residents of North Lanarkshire now having access to a new 7.6 hectare community woodland as a result of a Section 75 agreement secured on the back of new housing development in the area.

Wellside Community Woodland is located to the north of Airdrie, adjacent to the A73, and was planted as a result of an agreement between North Lanarkshire Council and the landowner. A condition of planning permission for new housing required an adjoining area to be turned over to woodland – in line with a local greening strategy developed by the Council, Scottish Enterprise Lanarkshire and Central Scotland Forest Trust (CSFT).

A Section 75 agreement was then negotiated between the Council and the landowner, to fulfil the

planning condition. CSFT was brought in at a very early stage by North Lanarkshire planners to provide advice on the design of the new woodland and this helped ensure clarity for the developer over the likely costs of fulfilling the condition if the development went ahead.

A separate agreement was reached between the developer, landowner and CSFT to implement and manage the woodland over a ten year period. The creation of the woodland began as the first phase of the housing development was underway ensuring the woodland would be available for the new residents as the first houses were occupied. This arrangement has been funded by the developer and has given confidence that the site will remain as a well-managed community asset for the foreseeable future. CSFT is also able to work with local people to develop ideas that can add benefit to the original scheme.

Further details are available from: mike.batley@csft.org.uk
at the Central Scotland Forest Trust.

6. Further advice

Further advice and information on all aspects of this guidance are available from a range of sources. In the first instance it is recommended that you contact your local Forestry Commission Scotland Conservancy office as follows:

South Scotland Conservancy
55-57 Moffat Road
Dumfries
DG1 1NP
01387 272440
(for Scottish Borders, Dumfries & Galloway, South Ayrshire and East Ayrshire Councils)

Central Scotland Conservancy
Bothwell House
Hamilton Business Park
Caird Park
Hamilton
ML3 0QA
01698 368530
(for North Ayrshire, Inverclyde, Renfrewshire, East Renfrewshire, North & South Lanarkshire, City of Glasgow, East & West Dunbartonshire, Falkirk, East, Mid- & West Lothian, City of Edinburgh, and Fife Councils)

Perth & Argyll Conservancy
Algo Business Centre
Perth
PH2 0NJ
01738 442830
(for City of Dundee, Perth & Kinross, Clackmannanshire, Stirling, and Argyll & Bute Councils)

Grampian Conservancy
Ordiquhill
Portsoy Road
Huntly
AB54 4SJ
01466 794542
(for City of Aberdeen, Aberdeenshire and Moray Councils)

Highlands & Islands Conservancy
Woodlands
Foddarty Way
Dingwall
Ross-shire
IV15 9XB
01349 862144
(for Highland, Western Isles, Orkney Islands and Shetland Islands Councils)

Alternatively you can contact the Social and Planning Policy Team at Forestry Commission Scotland National Office at:

Silvan House
231 Corstorphine Road
Edinburgh
EH12 7AT
0131 3340303

Details of all Forestry Commission Scotland offices, including Forest Enterprise Districts, and forestry policy and programmes in Scotland are available at: www.forestry.gov.uk/scotland

Advice and guidance may also be obtained from the following sources:

Scottish Government
Directorate for the Built Environment
Victoria Quay
Edinburgh
EH6 6QQ
0131 244
www.scotland.gov.uk/Topics/built-environment/planning
(this website also provides contact details for all Scottish planning authorities)

Scottish Natural Heritage
Great Glen House
Leachkin Road
Inverness
IV3 8NW
01463 725000
www.snh.gov.uk/planning-and-development

Scottish Environmental Protection Agency
Erskine Court
Castle Business Park
STIRLING
FK9 4TR
01786 457700
www.sepa.org.uk/planning.aspx

Historic Scotland
Longmore House
Salisbury Place
Edinburgh
EH9 1SH
0131 668 8600
www.historic-scotland.gov.uk

Annex A: The UK Forestry Standard

The UK Forestry Standard (UKFS)

The UK Forestry Standard, and its associated Guidelines, act as the foundation for sustainable forestry in all parts of the UK. The UKFS is agreed by all of the Governments within the UK and links international obligations on sustainable forest management with policies on implementation. It therefore sets the context for forestry policy and practice in Scotland.

The UKFS itself acts as a performance standard for the sustainable management, planning and design of all forests in the UK, while the Guidelines provide more detailed advice on how these requirements can be met in practice. Compliance with the UKFS and the Guidelines is mandatory to ensure forestry activity meets legal obligations and the sustainability standards set by the Governments in the UK.

The UKFS and guidelines are currently being revised and updated, and were subject to wide ranging consultation during 2009. The new UKFS and guidelines are expected to be published in 2010.

The UKFS & Guidelines also provide the basis for independent certification schemes in the UK. These are not mandatory, but independent voluntary schemes, paid for by the woodland owner. They provide additional assurances of the standard of woodland management. In particular, these schemes involve timber labelling so that buyers know that wood and wood products come from sustainable sources. You are likely to have seen logos for the Forest Stewardship Council (FSC) and the Programme for Endorsement of Forest Certification Programmes (PEFC) on paper and wood products you have bought.

Scope and application of the UKFS

The UKFS and guidelines apply to all woodlands/forests. This includes short rotation coppice and short rotation forestry, whether managed as part of a forestry operation or an agricultural regime. However, the scope of the UKFS and Guidelines does not extend to the management of individual trees (known as arboriculture); orchards, ornamental trees and gardens, tree nurseries; or the growing of Christmas trees.

The UKFS and guidelines encompass the whole of the area that forms part of a woodland or forest, including open areas, water bodies, and shrub species, in addition to trees themselves. The UKFS applies to the creation of new woodland, to all woodland types and management systems, and includes woodlands in urban areas

The UKFS and Guidelines are aimed primarily at woodland managers and owners, but will be of interest more broadly to anyone concerned with new or existing woodlands. In Scotland the main body responsible for promoting and regulating the UKFS and Guidelines is Forestry Commission Scotland, but the UKFS & Guidelines are intended to be applied by all other bodies with responsibilities for controlling the creation or management of woodlands. For example, local authorities authorising woodland planting or removal, or specifying future management standards, as part of development management should ensure they are applied through planning conditions.

How the UKFS and guidelines work

The UKFS acts as a performance standard for sustainable forest management. As such it needs to be both explicit and verifiable. The UKFS therefore defines the requirements that woodland owners and managers need to meet for various elements of woodland management in terms of 1) legal requirements; and 2) good forest practice requirements. These requirements are set out separately in the UKFS. Compliance with the legal elements is a minimum requirement to ensure that woodland management meets all statutory requirements in UK or EU law. Contravention of these requirements could therefore lead to prosecution. Compliance with the good forest practice requirements is required to demonstrate wider aspects of sustainable forest management fully and UK grants and incentives for forestry are dependent upon compliance.

The Guidelines associated with the UKFS provide expanded advice on how to achieve these requirements in practice. They provide guidance and examples to illustrate good practice and are summarised in a check-list that can be used to assess whether all the requirements have been met, and hence full compliance with UKFS achieved.

Individual guidelines address specific elements of woodland management in detail. As part of the current revision of the UKFS, seven guidelines will be published covering:

- Biodiversity;
- Climate Change;
- Historic Environment;
- Landscape;
- People;
- Soils; and
- Water.

A Forest Planning and Practice section at the end of the UKFS itself describes a variety of fundamentals of woodland management that cut across many of the more topic specific elements.

Implementing the UKFS

The regulations governing forestry in Scotland and the rest of the UK provide two options for assuring and approving that woodland management proposals meet UKFS requirements. These are felling licences and forest management plans.

Box 2 on page 47 describe the felling licence system in more detail. Approval of a licence effectively gives permission for the owner manager to fell trees. Most licences are granted on condition that the area is subsequently replanted with trees. Felling licences are entirely separate from the offer of grant or other incentives within the forestry system. Planning authorities permitting felling through the development management system will wish to consider whether compensatory planting and/or replanting is required as a condition of consent.

A forest management plan sets out the woodland owner/manager's intentions for the woodland in question over a set period of time, while setting the proposals in a broader context for the surrounding area. Approval of a forest management plan provides assurance that all of the requirements of the UKFS have been met and the offer of incentives for forestry are conditional upon the submission and approval of a forest plan by the Forestry Commission. Plans are monitored and reviewed periodically to ensure ongoing compliance. Planning authorities granting consent for tree planting through development management will wish to consider whether a forestry or other management plan is required as part of planning conditions to ensure the ongoing maintenance of new planting.

Further information

Further information on all aspects of the UKFS is available at **www.forestry.gov.uk/ukfs** or by contacting your local Forestry Commission Scotland Conservancy office.

Private forestry consultants are listed in the business pages of the telephone directory under 'Forestry Consultant'. Professional forestry consultants are usually members of the Institute of Chartered Foresters (ICF). They can offer advice on establishing and managing woodlands of all types, and will prepare plans and applications for funding to meet UKFS standards if required. The website of the ICF **www.charteredforesters.org** also includes a searchable database of registered forestry consultants.

Annex B: data sources and tools for us in preparing a forestry and woodland strategy

This annex provides basic information about a range of data sources and tools that may be useful to a planning authority when reviewing and preparing a forestry and woodland strategy. Further information on each can be obtained by following the relevant links or by contacting your local Forestry Commission Scotland Conservancy office.

Land Suitability for Woodlands – to inform the drafting of the Scottish Forestry Strategy the MacAuley Institute undertook spatial research to identify the extent of land within Scotland that is potentially suitable for woodland,. This analysis took account of a wide range of biological and land use constraints and could inform the baseline analysis necessary for the production of a forestry and woodland strategy. Further details of the research are available at: **www.forestry.gov.uk/forestry/infd-6mgfky**. The MacAuley Institute (**www.macauley.ac.uk**) can advise on the use of the underlying data.

Landscape Character Assessment (LCA) – is an approach to understanding the differences between landscapes, and can serve as a framework for decision-making that respects local distinctiveness. Covering all regions of Scotland, some thirty LCAs have been prepared by Scottish Natural Heritage (SNH). Besides collectively describing over 360 distinct landscape character types throughout Scotland, they also usually identify potential 'forces for change' on the landscape, and provide associated summary guidance on managing such change. This usually includes the 'force for change' and associated guidance issues that should be considered when looking at the contribution forest and woodland management and expansion decisions make to a local landscape. Advice on LCA and copies of all regional LCAs are available at: **www.snh.gov.uk/policy-and-guidance**

Historic Land-use – the Historic Land-use Assessment (HLA) is a tool for exploring the historic or 'time-depth' dimension of a landscape. HLA is an ongoing project, jointly sponsored by Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland. To date, 60% of Scotland has been covered by the assessment, and it is planned to complete coverage in 2010-11. HLA focuses on the effect of human activity on the landscape and can contribute towards an appreciation of how the landscape has developed over time, and provide an enhanced understanding of the present day landscape and how the historic environment can be managed sensitively and sustainably. HLA can be accessed through the RCAHMS HLAMAP website at:
www.rcahms.gov.uk. More detailed information on historic land-use, cultural heritage and designed landscapes may be available via local authorities.

Biological and Environmental Evaluation Tools for Landscape Ecology (BEETLE) – was developed by Forest Research and SNH to model and analyse habitat fragmentation and connectivity using GIS and has recently been adapted to model the potential use of greenspace by local communities. It comprises a suite of tools that analyse landcover, habitat requirements and species movements to model functional connectivity and, thereby, to inform land use proposals. Recent examples of the use of BEETLE include using the tools to target grant funding for woodland creation to increase habitat connectivity in the Isle of Wight and the Highlands.

Further details of BEETLE and Forest Research's Landscape Ecology programme are available at **www.forestresearch.gov.uk/landscapeecology**

Social Investment in Forestry Tool (SIFT) – is a decision support service provided by Forestry Commission Scotland. SIFT is a Geographic Information System based tool that enables users to prioritise investment in woodland creation and woodland management for social outcomes.

SIFT uses spatial datasets relevant to assessing social benefits arising from woodland creation or management proposals. Benefits are grouped according to six possible outcomes:

- improved health and well-being
- woodland to benefit people from deprived areas
- more use of woodland for access and recreation
- more woodland-based outdoor education (all ages)
- more woodland-based outdoor education (Secondary)
- more woodland-based outdoor education (Primary)

Datasets are given a score according to their relative potential benefit. These prioritised datasets are combined and analysed using GIS. The results can then be applied to the specific locations of interest in order to provide a spatial picture of potential social benefit. For example, from a sample of sites, SIFT could identify the best ones for providing either multiple or specific community benefits.

Further details of the SIFT tool are available from **cgis@forestry.gsi.gov.uk** or from:
www.forestry.gov.uk/sift

Woods for People - is an ongoing partnership between the Woodland Trust, the Forestry Commission and the Environment and Heritage Service (Northern Ireland) to create and maintain a UK wide 'provisional' dataset of accessible woodland. The Woods for People data is gathered from a wide variety of sources including local authorities, NGOs, statutory agents, woodland management companies and private landowners. It is from this dataset that information on the **Space for People** Standard on accessible woodland is derived. The dataset is updated on an annual basis and the current version is v6 (2009). Further information can be found at: **www.woodland-trust.org.uk/woodsforpeople**

Grant Schemes and Felling Licences – statistics and spatial data are available for areas of new planting, restocking and woodland management grant aided under WGS and SFGS as well as felling under Forest Plans or Felling Licence. For further information contact Forestry Commission Scotland's Grants & Regulations Delivery Group.

Please Note: *Since April 2008, woodland grants have been delivered via Rural Development Contracts under SRDP. No spatial data and only limited statistics are available for RDC-RP options.*

National Inventory of Woodlands and Trees (NIWT) – was a sample survey of woodlands across Britain carried out between 1995 and 1999 which assessed a range of information on trees species composition and growth characteristics, as well as environmental data. National and regional reports for Scotland were

published in 2001 and are available at: **www.forestry.gov.uk/inventory**
NIWT also comprised of a digital map. This was a desk-based exercise involving the interpretation of 1:25,000 maps and aerial photographs to identify all woodlands over 2ha with a canopy cover >=50%. This has been updated with known areas of new planting up to 2009.

NIWT is to be succeeded by the **National Forest Inventory (NFI)**. It will also be a sample survey, based on 1 hectare plots, which will yield statistical summary information on composition, structure, condition and management practices in woodlands across Scotland. Sampling started in 2009/10 and will take place over a five year cycle. Reports are likely to be available for Scotland in 2014/15. More information on both the NIWT and the NFI are available at: www.forestry.gov.uk/inventory. The NFI digital map is targeted for completion during 2010 and again this is a desk based exercise, although this time using OS MasterMap and aerial photography interpretation. It will include all woodlands greater than 0.5ha with a canopy cover >=20%. Woodland is broken down into 'indicative forestry types' (e.g. conifer, broadleaf, felled, etc.)

Native Woodland Survey of Scotland (NWSS) – is a comprehensive survey of all of Scotland's native woodlands (i.e. woods with more than 50% native species in the canopy). The survey is based on a digitised woodland map of Scotland and using field survey collects data on a range of woodland attributes. These attributes include woodland type (National Vegetation Community (NVC) and Habitat Action Plan (HAP) type), generic woodland type (whether the wood is semi natural or planted), species composition and structure, herbivore impact, deadwood and threats and damage. The data is collated to provide an assessment of woodland condition and can be analysed to ascertain the conservation value of the woodland. As a national spatial dataset it will be possible to combine this with other spatial data sets to better understand the status and value of native woodland in any area of Scotland.

The data is currently being collected and the project will complete in 2013. Prior to this data will be available for certain geographical areas on a rolling programme from 2009/10 onwards. More information about the schedule for data availability and accessibility is available on the Forestry Commission Scotland website: **www.forestry.gov.uk/nwss**. Training courses for local authority staff on accessing and using the data are being offered in conjunction with the phased release of the data and further information is available from the Project Manager at Forestry Commission Scotland (**0131 314 6567**).

Forestry Commission Scotland serves as the forestry directorate of the Scottish Government and is responsible to Scottish Ministers

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Published by - Forestry Commission Scotland - May 2010
ISBN - 978 0 85538 805 8

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FCFC129/FC-S(DIS)/MI/500K/MAY10