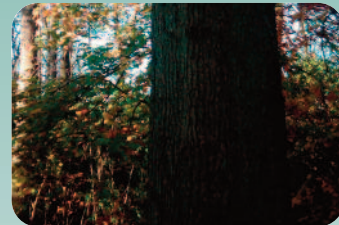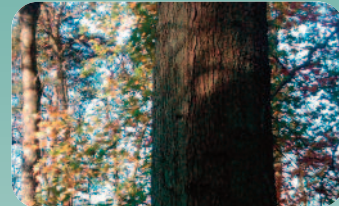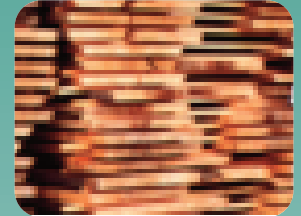# STIRLING & CLACKMANNANSHIRE

Forestry & Woodland Strategy

Supplementary Guidance

August 2014

STIRLING & CLACKMANNANSHIRE
Forest and Woodland Strategy
Supplementary Guidance

Published **August 2014** (Stirling Council)

Further Information

Stirling Council
Economy, Planning and Regulation, Municipal Buildings, 8-10 Corn Exchange Road FK8 2HU
www. stirling.gov.uk

Clackmannanshire Council Kilncraigs, Greenside Street, Alloa, Clackmannanshire FK10 1EB
www.clacksweb.org.uk

Hillhouseridge, Shottskirk Road, Shotts, North Lanarkshire ML7 4JS
www.csgnt.org.uk

Contents

List of Maps, Tables & Figures

Appendices referred to in this document have not been included in the published version of the Strategy, but can be viewed online on both Stirling and Clackmannanshire Council's websites.

1 Introducing the Strategy

THE TREES, WOODLANDS AND FORESTS of Stirling & Clackmannanshire contribute greatly to the quality of the landscape, environment, biodiversity, cultural heritage and the local economy. They also incorporate, or provide a backdrop to, popular recreation and tourism destinations such as Gartmorn Dam Country Park & Nature Reserve, the Carron Valley Forest and Reservoir, the Ochil Hills Woodland Park, Balquhidderock Wood and Mugdock and Plean Country Parks.

Given these inherent qualities it is essential to ensure that any future proposals for developing and expanding Stirling and Clackmannanshire's woodlands and forests integrate, in a complementary and balanced way, with other land uses.

The Stirling & Clackmannanshire Forestry and Woodland Strategy (SCFWS) sets out the Councils' vision, strategy and objectives for the future of woodlands and forestry. It is based around a 40-year vision to 2052, with options for 5 yearly reviews in line with Local Development Plan timescales. Map 1 shows the area covered by the Strategy, and its relationship to the Central Scotland Green Network and the Loch Lomond & Trossachs National Park (covered by a separate National Park Partnership Plan 2012 – 2017).

The Strategy has been developed by Stirling and Clackmannanshire Councils, in partnership with Forestry Commission Scotland and the Central Scotland Forest Trust, and with advice and guidance from a Steering Group comprising a range of other key players including Scottish Natural Heritage and the Community Woodlands Association.

A consultant team comprising RDI Associates Ltd, C J Piper & Co, Chartered Foresters and Land Use Consultants was engaged to develop the strategy and provide professional forestry, GIS and facilitation support. There has been wide ranging public consultation that has helped inform the final version of the document. Consultation responses are summarised in **Appendix I**.

"The trees, woodlands and forests of Stirling & Clackmannanshire contribute greatly to the quality of the landscape, environment, biodiversity, cultural heritage and the local economy."

The Strategy has also been the subject of a Strategic Environmental Assessment (SEA), which assessed significant environmental effects, and a Habitats Regulations Appraisal (HRA), which assessed the likelihood of significant effects on 'European' sites, that is Special Areas of Conservation and Special Protection Areas.

The SCFWS forms a link between forestry and woodland activities and other Scottish Government initiatives aiming to enhance the wide range of economic, environmental and social benefits derived from woodlands and forests. It also provides a strategic framework for the development and expansion of a variety of forest and woodland types across Stirling and Clackmannanshire.

At the broadest strategic level, the purpose of the SCFWS is to provide a local expression of how the national vision and priorities for the protection and expansion of Scotland's forest and woodland resource as set out in the Scottish Forestry Strategy (SFS) will be achieved.

Definitions
The Strategy uses the following definitions adopted in the Scottish Forestry Strategy:

Forestry - the practice of all aspects of tree management, including forest and woodland management, arboriculture, urban forestry and environmental forestry and research, education and training in these fields.

Forest - usually applied to a large area of woodland of varied ages and tree species.

Wood or woodland – more often describes a smaller area of trees.

Map 1 Strategy Location

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2

The Context for Forestry & Woodland

2.1 National Policy Context

National policy is set by the **Scottish Forestry Strategy** (SFS) (2006), the Scottish Government's framework for forestry up until 2050 and beyond.

It has the following seven themes:-

Scottish Forestry Strategy Themes

1 Helping Scotland mitigate and adapt to **climate change.**

2 Getting the most from Scotland's **timber** resource.

3 Supporting sustainable economic growth through the **business development** of the Scottish woodland sector.

4 Supporting **community development** to improve quality of life and wellbeing.

5 Improving **access** to woodlands, to help improve the **health** of Scotland.

6 Protecting the **environmental quality** of our natural resources.

7 Helping to conserve and enhance Scotland's **biodiversity.**

The following documents are also relevant:-

The Scottish Government's Rationale for Woodland Expansion (FCS 2009)

Climate Change Action Plan 2009-11 (FCS 2009)

The Scottish Government's Policy on Control of Woodland Removal (FCS 2009)

Any recommendations in this strategy for forest management, forest operations and woodland creation also fall within the scope of existing Best Practices and Guidance, in particular the **UK Forestry Standard** and its associated Guidelines, and **The Right Tree in the Right Place**.

The following Scottish Government planning policy documents are also relevant:

National Planning Framework (NPF) Reiterates the objectives of the SFS and the need to plan for the expansion of woodland cover. NPF confirms the need to protect existing woodland and removal should only be permitted where there are significant and clearly defined public benefits. NPF also promotes green networks and habitat networks. The consequential increase in woodland cover will improve landscape quality, biodiversity and amenity and help to absorb CO_2.

The Central Scotland Green Network Trust (CSGNT) is a 'National Development' in the NPF. It aims to restore and improve the rural and urban landscapes of Central Scotland under the following five themes:

A Place for Growth - Creating an environment for sustainable economic growth.

A Place in Balance - Creating an environment more in balance to thrive in a changing climate.

A Place to Feel Good - Creating an environment which supports healthy lifestyles and well being.

A Place for Nature - Creating an environment where nature can flourish.

A Place to Belong - Creating an environment that people can enjoy and where they live.

The SCFWS has been developed with a specific aim of contributing to the complementary aims of the SFS and CSGNT.

Scottish Planning Policy (SPP) draws attention to the high biodiversity value of woodlands, trees and hedgerows. Ancient and semi-natural woodland should be protected and enhanced. Development impacts on habitat connectivity should be ameliorated through mitigation measures. Woodland removal should only be allowed where it will achieve public benefit. Planning authorities should consider preparing woodland strategies as supplementary guidance.

2.2 National Regulation & Control

Forestry Commission Scotland (FCS) manages the national forest estate and is also the Scottish Government's regulatory body for forestry. FCS assesses potential forest projects for their environmental impact, approves and monitors publicly funded woodland proposals and ensures compliance with local and national policies and best practice guidelines. FCS also maintains a Register of New Planting and Felling, Register of Environmental Impact Assessments and Registers of Woodland Creation which provide information on key forest proposals.

Forestry activities such as planting and felling are not normally subject to planning controls. Local authorities are, however, consulted by FCS on a range of planting and felling proposals and longer term forest plans and therefore can influence where future woodland expansion should occur and the development of the forest industry within their areas.

Where appropriate the SCFWS will inform the responses from Stirling and Clackmannanshire Councils to such consultations.

2.3 Local Policy Context

At the local level the SCFWS is informed by the existing plans and strategies of Stirling and Clackmannanshire Councils. Account has also been taken of views and comments of local residents, communities and other stakeholders submitted in response to the public consultation.

The SCFWS links with the Councils' Single Outcome Agreements and Local Development Plans, together with a range of other policy and strategy documents connected to the themes of the SFS. These include:

For Clackmannanshire Council:

Community Plan 'Working Together for Clackmannanshire' (2010) - provides the overall framework in which community planning operates and provides a basis for the Single Outcome Agreement.

Local Development Plan (LDP) - published in 2013 for public consultation. The SCFWS will form Supplementary Planning Guidance in association with the adopted LDP.

Biodiversity Action Plan 2012-2017 - Supports the Council's **Sustainability and Climate Change Strategy (2010).**

Economic Development Framework 2008-2018 - provides a focus for economic development in the area and a set of priorities to help Clackmannanshire realise its economic ambitions for 2008 - 2018.

Open Space Strategy (being finalised) - supports increased woodland cover in support of CSGN and SFS. This will help to mitigate climate change through the capture, storage and retention of carbon by woodland expansion and promotion of active travel.

Greening Clackmannanshire (2010) - provides a framework for action on the local environment and for taking forward the environment theme of the Clackmannanshire Alliance. It aims to enlist everyone's help to care for the physical environment, address climate change impacts and enhance communication and access.

For Stirling Council:

Community Plan (2005-2020) - sets out the local Community Planning Partnership's vision and plan for the future prosperity for Stirling.

Local Development Plan . The SCFWS will form Supplementary Guidance in association with the adopted LDP.

Countryside Access and Recreation Strategy 1999 (and Review 1997-2005) - this seeks to guide the development, management and promotion of countryside access opportunities.

Open for Business - Stirling Economic Strategy 2009-13 - this includes a vision and action plan based on the principles of sustainable growth and economic opportunity.

SG02: Green Network – this forms supplementary guidance to the Stirling Local Development Plan. It explains the concept and functions of the Green Network and introduces the Open Space Strategy and its relationship to the Local Development Plan, including Developer Contributions relative to Green Infrastructure.

Additional policy documents are listed in **Appendix II.**

Map 2 Scotland Woodland Cover
(Forestry Commission Scotland National Forest Inventory)

2.4 Scotland's Forest and Woodland Resource

Scotland's trees, woodlands and forests make a vital contribution to the nation's economic, environmental and social well-being.

Over 55% of Britain's trees are in Scotland where the total area of woodland and forest is currently 1.38 million hectares - equivalent to 17.8% of Scotland's total land area. Though woodland cover has increased significantly in the past 50-60 years, nonetheless it still compares relatively unfavourably with the European average of 37%. Of Scotland's woodland area, approximately 70% is currently coniferous woodland producing softwood timber and 14% broadleaved woodland producing hardwood timber. 4% is mixed woodland and the balance is open space within woodland. The main conifer species are Sitka spruce, Scots pine and Lodgepole pine, while the main broadleaved species are birch and oak.

Over 70% of Scotland's forests were planted during the second half of the 20th Century. Since the 1990s there has though been a significant shift in the type and location of new planting. Prior to 1990 new forests were mainly planted on land with reduced capability for agriculture.

More recently planting on better land is now encouraged. At the same time species diversity is much greater and includes a higher proportions of broadleaves.

Native Scots pine and broadleaves have also been planted to re-create native woodlands lost in earlier times. A greater proportion of new planting is taking place on land that is privately owned, or owned by voluntary organisations, charities or community groups.

2.5 Forestry & Woodlands in Stirling & Clackmannanshire

Woodland Cover and Type

Stirling & Clackmannanshire's overall woodland and forest cover currently extends to some 21,350 hectares or 17% of total land area - see Map 2 and Table 1 , comparing favourably with Scotland's 17% woodland cover.

Included within the overall woodland cover of Stirling and Clackmannanshire, some 8,800 hectares (45%) is classified as ancient and semi-natural woodland (including native woodland, nearly native

Figure 1 Key Woodland Types
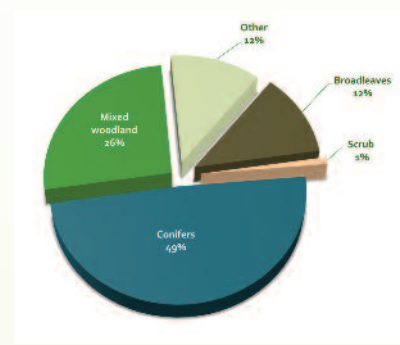
woodland and Plantation on Ancient Woodland Sites (PAWS)).

The proportions of the key types of woodland that make up the 21,350 hectares are illustrated in Figure 2 below.

Woodland in Clackmannanshire can be divided into two main categories:-

- Small areas of woodland on the edge of settlements whose main purpose is to provide an open space resource for the local community, such as Gean Park - Alloa, Back Wood -Clackmannan and Delph Wood -Tullibody;

- Larger areas of woodland / traditional woodland estates in more rural parts of Clackmannanshire such as the area around Gartmorn Dam - Sauchie and Harviestoun Estate - Tillicoultry.

The woodland area totals some 2,170 hectares, accounting for 13% of the total land area, slightly smaller than the Scottish average. Conifer plantations of pine, mixed spruce and larch account for 35% of the total wooded area with the balance comprising a range of mixed broadleaved woodland, of which 38 hectares are recorded as ancient woodland - that is, areas with continuous woodland cover since AD 1750.

Table 1 Forestry & Woodland within the Strategy Area

Category	Ares (ha)	%
Total Strategy Area	125,210	100
Area within Clackmannanshire Council (i.e. overall administrative area)	16,395	13
Area within Stirling Council (i.e. Local Development Plan area and excluding National Park)	108,815	87
Woodland cover within Strategy Area	21,350	17
Woodland cover within Clackmannanshire	2,170	13
Woodland Cover within Stirling	19,180	18
Proportion of Strategy Area within CSGN	101,710	78

"Scotland's trees, woodlands and forests make a vital contribution to the nation's economic, environmental and social well-being."

Several woodlands in Clackmannanshire are designated as Sites of Special Scientific Interest (SSSI) including Back Burn Wood, Damhead Wood and Linn Mill.

Stirling has a woodland cover of 19,180 hectares, accounting for just under 18% of the total land area. This woodland supports a wide range of tree species and contains a mosaic of different forest and woodlands types including large-scale conifer plantations (e.g. Carron Valley Forest, Lennieston Muir and Braes of Doune), mixed traditional estate woodlands (e.g. Cromlix and Blairdrummond), small-scale mixed lowland farm woodlands, ancient woodland / long established plantation origin sites (e.g. Abbey Craig and Cambusbarron) and urban woods.

As in Clackmannanshire, several woodlands are designated as SSSIs, including Abbey Craig, Balquidderock Wood, Glen Lochay Woods, Kippenrait Glen and Wester Moss.
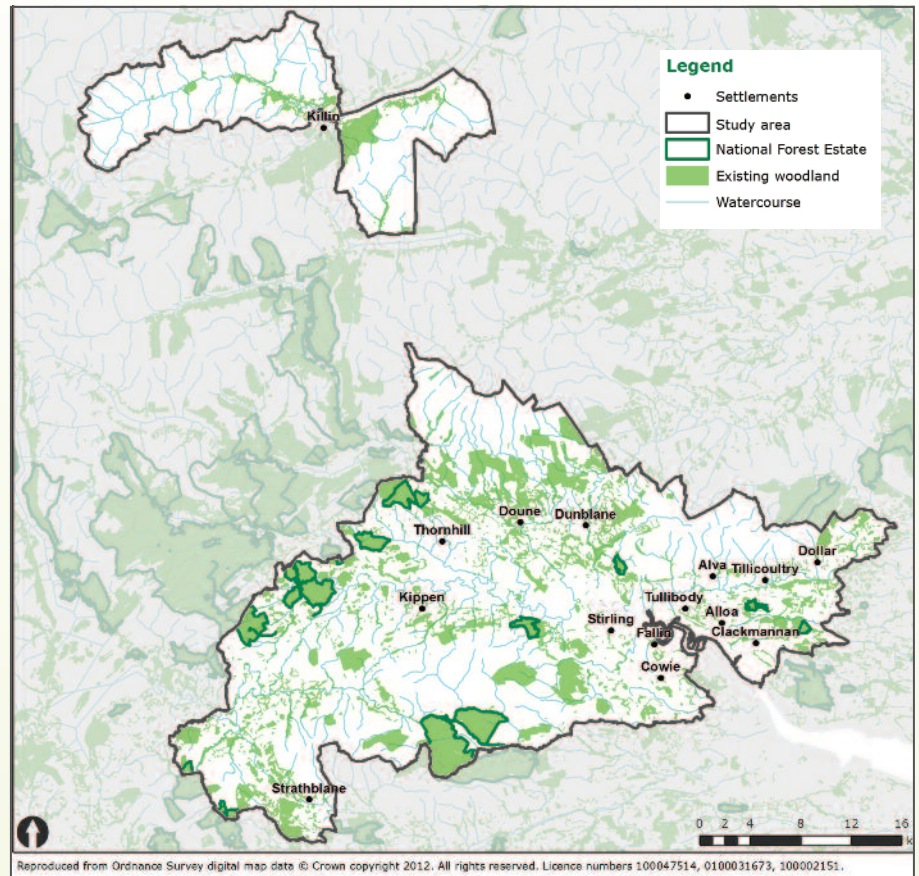
2.6 Other Considerations

The Forest and Timber Industry

The forest and timber industry is one of Scotland's hidden assets, contributing directly and indirectly to the economy. It spans the complete lifecycle of wood - the growing of tree seedlings; the planting, managing and harvesting of forests; manufacturing activities such as sawmilling, pulp and paper production, panel and board manufacturing and the development and production of higher value goods such as engineered wood products. In addition, forest and processing co-products such as wood chips and pellets can be used in renewable energy production. In Scotland 90% of renewable heat generation comes from wood energy. In the European Union wood energy is the largest (66%) renewable energy sector. Local examples include Norbord's MDF and particleboard manufacturing facility at Cowie and the installation of a biomass boiler at the Viewforth headquarters of Stirling Council.

The past decade has seen considerable growth in the economic impact of forest and timber industries. It currently has a Gross Value Added (GVA) of some £1.67billion, 1.8% of the total Scottish economy, and accounts for 38,500 direct and 'downstream' jobs.

Map 3 Current Woodland Cover in Strategy Area

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The current harvested volume of softwood in Scotland is between 6-7 million cubic metres per annum; forecast to increase to circa 8.5 million cubic metres in 2016, representing 60 % of the UK's total softwood timber production.

Multiple Benefits

Forests and woodlands, by their very nature, provide multiple benefits. They create places for recreation, promote health through cleaner air and provide habitats where biodiversity can flourish. Perhaps most importantly forests absorb carbon generated by other parts of the economy and so provide an increasingly important way of mitigating climate change. Recent research demonstrates that as much as 10% of all carbon emissions in the UK could be absorbed through an expanded forest industry based on more wooded and forested areas.
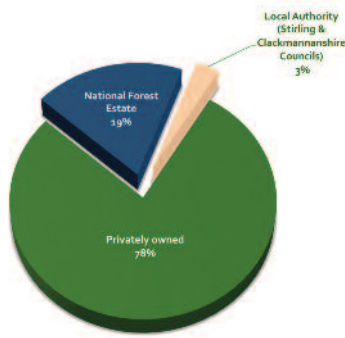
Figure 2 Woodland Ownership

Figure 3 illustrates the distribution of woodland ownership within Stirling and Clackmannanshire. Privately owned woodlands – almost 80% - predominate, with the balance - 19% and 3% respectively - owned and managed by Forestry Commission Scotland and Stirling / Clackmannanshire Councils. As elsewhere in Scotland the pattern of private ownership is highly fragmented, though also includes a number of large-scale private commercial plantations in the more upland areas of Stirling and towards the eastern part of Clackmannanshire.

Landscape Types
There is a wide range of landscape types in Stirling and Clackmannanshire, from relatively flat lowland river valleys to mountains and highland lochs; in which forests and woodlands are intrinsic elements. Land uses are also various and diverse, from urban/industrial to remote upland moors. Details of the landscape characters found within the Strategy area can be found in **Appendix V Map A1**. These are derived from Landscape Character Assessments (LCAs), a standard system for identifying, describing and mapping landscape variation. LCAs provide baseline information to guide landscape changes, which can then be used in development plans, decisions of development proposals, land management plans, forest and woodland strategies and agri-environmental schemes. General information on LCAs, together with more detailed landscape assessment reports guidance are held by Scottish Natural Heritage and can be viewed via the link http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/lca/

The thirteen landscape character types found within Stirling and Clackmannanshire have been used in the SCFWS to identify links between each landscape character and potential woodland types, along with the seven key themes of the SFS. These links are highlighted in Table 5 (see Page 14) and help show where to best target appropriate woodland expansion across Stirling & Clackmannanshire.

Timber Production
Forests and woodlands in eastern Scotland – including Stirling and Clackmannanshire – currently contain approximately 10% of Scotland's total standing conifer timber stock, some 212 million cubic metres.

Timber harvesting within the Strategy area is set to increase over the next 5 years due to the legacy of past planting regimes, with an increasing proportion emanating from private sector woodlands. Though timber prices, especially those for fuel and firewood, have recovered significantly from recent past lows, mainly due to increased demand for biomass, prices are nonetheless subject to the influences of the global market place, and cannot therefore be predicted with confidence over the period of the SCFWS. At 2012 levels, however, developing markets offer real opportunities of income from low quality timber in previously unprofitable or otherwise undermanaged smaller woodlands.

Certification
In the 1990s schemes such as the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification Schemes (PEFC), were established to provide assurance to business and consumers that forest products were sourced from well managed forests. An estimated 8% of world and 45% of UK forests are now certified.

In the UK, PEFC and FSC both use the UK Woodland Assurance Standard (UKWAS) (www.ukwas.org.uk) as the basis for owners to have woodlands independently certified as being sustainably managed. At the national level forest certification is an important mechanism for delivering national policy objectives for achieving sustainable forest management. As at 2009 approximately 87% of the 8 million tonnes of softwood roundwood harvested in the UK was certified.

At the regional level, the level of uptake of certification can also be used as an indicator of the environmental, social and economic credentials of the timber resource. The decision to apply for certification is, though, entirely voluntary and the inspection/audit process is funded by the owner or manager.

As all Forestry Commission woodlands in Great Britain are certified against the UKWAS, by definition 19% of the woodland cover in Stirling and Clackmannanshire is certified. The picture is less clear within the private sector.

Whilst many larger scale traditional estates and commercial plantations are certified, the level of uptake of certification elsewhere within privately owned woodlands remains relatively low, reflecting the prevalence of fragmented, small scale woodlands within Stirling and Clackmannanshire where costs of certification can be disproportionate to the benefits.

Timber Transport

The Stirling & Tayside Timber Transport Group was established in 1996 to ensure good liaison between the forest sector and local roads authorities, with particular regard given to timber haulage on more rural roads. A key consideration is the identification of agreed routes for timber haulage, as required. Further details can be found on the Timber Transport Forum website at www.timbertransportforum.org.uk

Biodiversity

The Strategy area contains impressive high quality wildlife habitats and biodiversity.

Stirling hosts some of the largest and most important lowland raised bog habitats in the UK (e.g. Flanders Mosses), upland habitats and botanical resources north and west of Killin, and significant areas of ancient and semi-natural woodland. It is also holds a key position in Central Scotland in terms of habitat networks. The Stirling Biodiversity Action Plan (2005) identifies a list of priority species and habitats, including juniper and lowland broadleaved woodlands. The Stirling Biodiversity Partnership is currently updating the Local Biodiversity Action Plan, with a view to progressively halting the decline and loss of biodiversity across Stirling. In addition to SPAs, SACs and SSSIs there are also Balquidderock Wood Local Nature Reserve and Mugdock and Plean Country Parks. Stirling Council is also seeking to designate a range of Local Nature Conservation Sites.
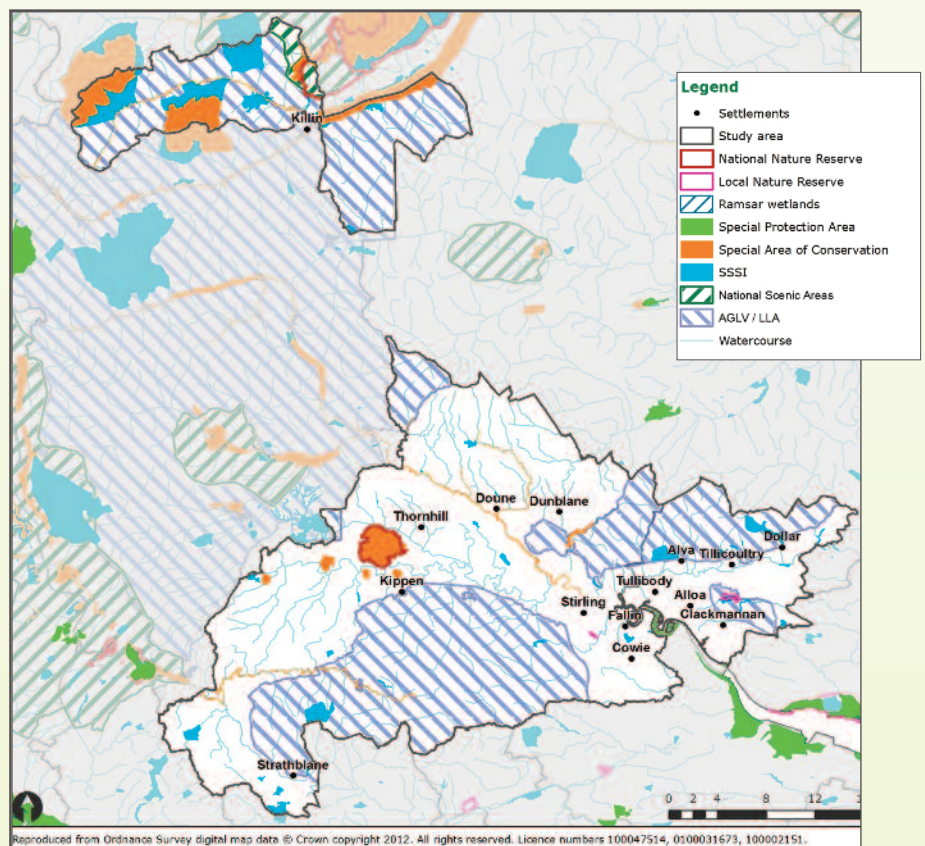
Clackmannanshire contains examples of all major habitat types; from the Ochil Hills uplands, estuarine habitats along the River Forth and all that lies between including woodlands, freshwaters, wetlands and lowlands. The Clackmannanshire Biodiversity Action Plan identifies several woodland habitats, including Lowland Mixed Deciduous Woodland, Upland Mixed Ashwood, Upland Oakwood, Wet

Woodland and Wood Pasture, all UK priority habitats. Large parts of the Firth of Forth are internationally designated as a RAMSAR site and Special Protection Area (SPA), on account of overwintering bird populations. There are nine Sites of Special Scientific Interest (SSSI), the Gartmorn Dam Local Nature Reserve and Country Park and twenty one Local Nature Conservation Sites, include woodlands such as Blackmuir Wood, Braehead Woodlands, Brandyhill Wood, Cowpark Wood, Pond Wood, Red Carr Wood, Devon Gorge Woodlands, Silver Glen and Woodland Park, Twenty-five Acre Wood and Auchlinksy Burn and Wood

A combination of agricultural, industrial and urban pressures has, however, degraded and/or fragmented many habitats within Clackmannanshire.

Map 4 Natural Heritage Designations

Legend
- Settlements
- Study area
- National Nature Reserve
- Local Nature Reserve
- Ramsar wetlands
- Special Protection Area
- Special Area of Conservation
- SSSI
- National Scenic Areas
- AGLV / LLA
- Watercourse

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Quality of Life

Forests and woodlands can enhance the general wellbeing of residents, local communities and visitors, for example by facilitating outdoor recreation in high-quality landscapes, and providing local recreational opportunities to nearby towns and villages. In recent years both Councils have accessed funding from Forestry Commission Scotland's 'Woodlands In and Around Towns' (WIAT) Challenge Fund to make improvements to woodlands around settlements.

Many elements of Stirling and Clackmannanshire's rich cultural heritage are found in and around woodlands, an added 'draw' that enhances the visitor experience and can also act as a focus for environmental interpretation and education.

Map 5 below illustrates the range of Historic Environment designations in the Strategy area.

Map 5 Historic Environment Designations

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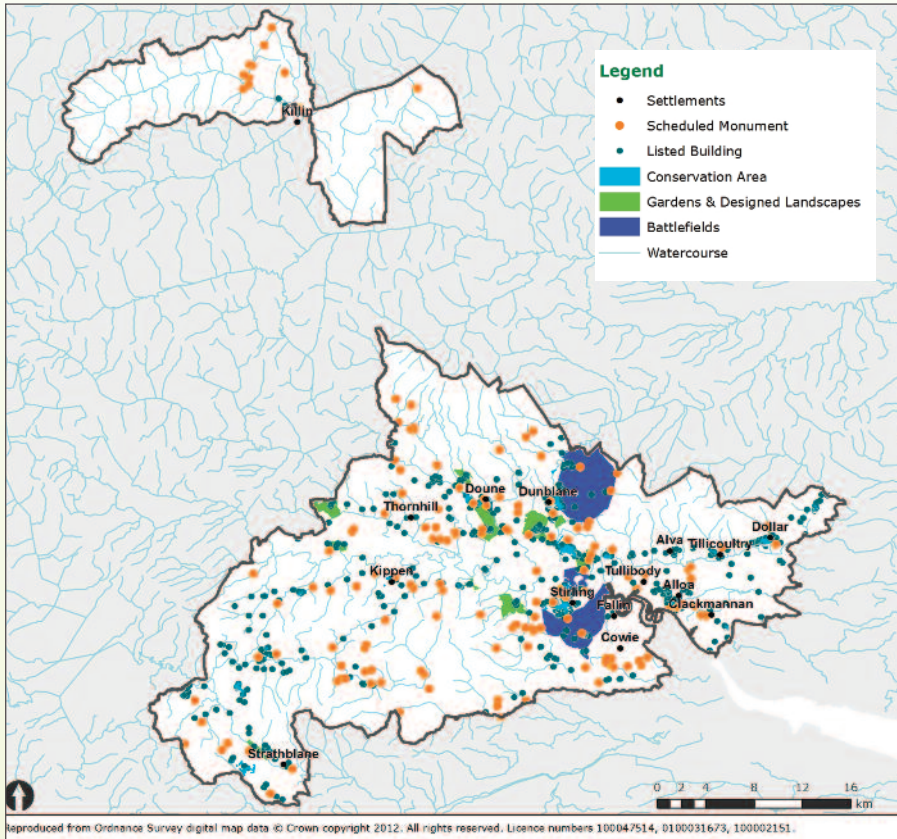
Community Woodland
In the broadest sense community woodlands are those that, whilst not necessarily directly owned by the community, are used - and in some situations involve activity by - the local community in conjunction with the woodland owner, on a formal or informal basis. Examples include woodlands owned and managed by the Local Authority, Forestry Commission Scotland or charitable bodies such as the Woodland Trust. They can also be partly or wholly owned and/or managed by a local - usually formally constituted - community woodland group. The woodland may be owned or leased by the group, or managed in partnership with another organisation such as FCS.

Since the late 1980s, over 200 groups across Scotland have become involved in, or responsible for, the management of thousands of hectares of woodland and open space.

New groups continue to form, encouraged by the Scottish Government's Land Reform legislation and the National Forest Land Scheme (www.forestry.gov.uk/nfls).

Community woodlands are extremely diverse, embracing all woodland types from ancient semi-natural woods to extensive conifer plantations, and ranging from less than a hectare to over a thousand hectares in size. Likewise, the communities involved range from crofting townships in the far north and west to small towns and inner-city communities in the central Scotland.

Some of the larger groups now employ staff to manage and develop their woods, while others are managed entirely by volunteers. Whilst aims and objectives vary, with account taken of local needs and aspirations and the type and scale of the woodland managed, all groups are working towards sustainable, flourishing, creative, resilient and vibrant community woodlands that deliver an impressive range of public benefits, such as local recreation, nature conservation, economic development, renewable energy and social inclusion.

In Stirling and Clackmannanshire there are now several established or emerging groups involved in managing, or exploring the possibility of managing, local woodlands on behalf of their community, such as Menstrie Community Woodlands, the Bridge of Allan Community Council and the Friends of Plean Country Park.

For more information on community woodlands, see www.communitywoods.org

Natural Flood Risk Management
Restoration and enhancement of natural features and characteristics of a landscape can play a role in managing the sources and pathways of floodwaters. Woodland planting can provide an opportunity to manage downstream flood risk via land use change in upland areas, for example through a combinaition of reduced stocking densities, blocking of drains and creation of upland woodlands.

3

Vision & Objectives

3.1 Vision

Through their expansion, protection and sustainable management, the forests and woodlands of Stirling and Clackmannanshire will provide a range of benefits for local people and visitors and contribute to economic, environmental and social well being.

Through partnership working and integrated planning, implementation and monitoring, new jobs will be created, opportunities provided for active and passive outdoor recreation, habitats enhanced for wildlife and attractive landscapes protected, so that local people can live and work and visitors enjoy the area's natural and cultural heritage.

3.2 Strategy Themes & Policy Objectives

The main strategic themes, policy objectives and outcomes that are the basis for the SCFWS and how they support the development, expansion and management of forestry and woodlands across the area are provided in **Appendix IV** (Strategic Themes, Objectives and Outcomes).
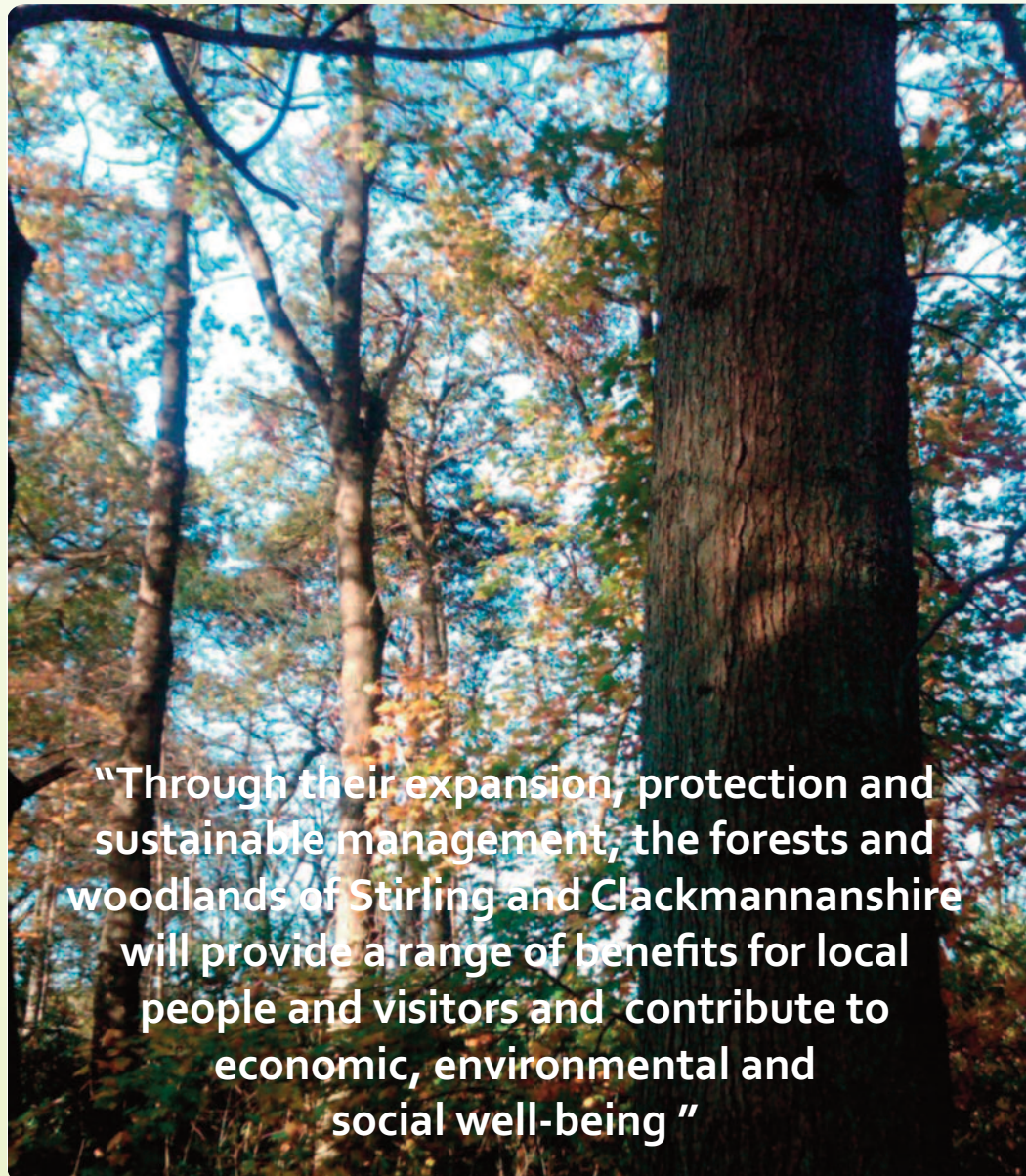
"Through their expansion, protection and sustainable management, the forests and woodlands of Stirling and Clackmannanshire will provide a range of benefits for local people and visitors and contribute to economic, environmental and social well-being "

4

Opportunities for Woodland Expansion

4.1 Overarching Principle

The overarching principle of the SCFWS is that woodland expansion should be looked upon favourably in Stirling and Clackmannanshire, but subject to appropriate scale, type, objective and overriding constraints. Furthermore it is an aspiration of the SCFWS that woodland expansion should be more integrated, more diverse, more inclusive, more productive, more resilient and more positive; thus contributing to the delivery of multiple economic, social and environmental benefits.

4.2 Sensitive, Potential and Preferred Locations

In order to achieve this, the Strategy has classified land under three broad categories for woodland expansion – 'sensitive', 'potential' and 'preferred'. This follows recommendations in The Right Tree in the Right Place: Planning for Forestry and Woodlands (RTRP) which sets out the broad criteria Forestry and Woodland Strategies should follow. It states that "…. *woodland strategies should divide land into categories, including the suitability of different locations for new woodland planting."* It will be for planning authorities to determine the detailed list of local sensitivities that will inform the categorisation of land, but it is expected this will include priority species and habitats, landscape, the cultural and historical environment, and interactions with the water environment and soils.

In seeking to encourage such woodland expansion in Stirling & Clackmannanshire however, the SCFWS recognises that both woodland expansion and associated forest management operations have the capacity to generate both positive and negative environmental impacts. In order therefore to ensure that any woodland and forestry expansion and forest management operations protect internationally, nationally and, where appropriate, locally important habitats,

species, landscapes and other heritage assets, all relevant regulatory, approval, assessment and monitoring processes should be promoted and implemented.

Furthermore, it should be noted that the classification of "preferred" or "potential" does not automatically mean that any proposal would proceed. Where woodland creation / expansion is recommended, this would need to follow current regulatory, approval, assessment and monitoring processes and industry recognised good practice to ensure compliance with the UK Forestry Standard and associated Guidelines (including the consideration of local sensitivities) and be approved by the relevant regulatory bodies. Details of such processes are included in **Appendix III**.

The SCFWS also recognises that the level of woodland creation in Stirling & Clackmannanshire should be subject to review every five to ten years, as too should the overall aims and objectives of the Scottish Forestry Strategy. In addition, any individual woodland creation proposal, regardless of its size, should be assessed on its ability to deliver the strategic priorities highlighted in the Scottish Forestry Strategy and identified specifically in the Stirling & Clackmannanshire Forestry and Woodland Strategy.

The RTRP Categories:

Preferred - land which offers the greatest scope to accommodate future expansion of a range of woodland types, and hence 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. Future woodland expansion is therefore likely to be focused on preferred areas.

"…woodland expansion should be more integrated, more diverse, more inclusive, more productive, more resilient and more positive; thus contributing to the delivery of multiple economic, social and environmental benefits."

Potential - land 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* - land where the nature or combination of sensitivities restricts the scope to accommodate woodland expansion or removal. Limited expansion is only likely to be possible where proposals are of a scale and character which can be accommodated without significant negative impacts, and/or where it would positively enhance features of interest. In some areas cumulative impact may be a relevant consideration.

* Note: This modifies the RTRP definition in that it allows the 'nature' of a sensitivity to have sufficient weight in itself to justify a sensitive allocation. In the case of the SCFWS this applies to Inventory Battlefields at Sherrifmuir, Bannockburn, Sauchieburn and Stirling Bridge (primarily urban). Further discussions are however taking place between FCS and Historic Scotland to ensure a consistent national approach is taken on this issue. Depending on the outcome it may then be necessary to adjust the categorisation of Inventory Battlefields.

Map 6 (Potential for Woodland Expansion) below identifies the land covered by each of the above RTRP recommended categories with the following additional land categories

Existing woodland (the current woodland resource);

Unsuitable (areas assessed as being physically unsuitable for the growth or management of trees, based on the former Macaulay Institute's Land Capability Maps for Forestry and wind farm footprints);
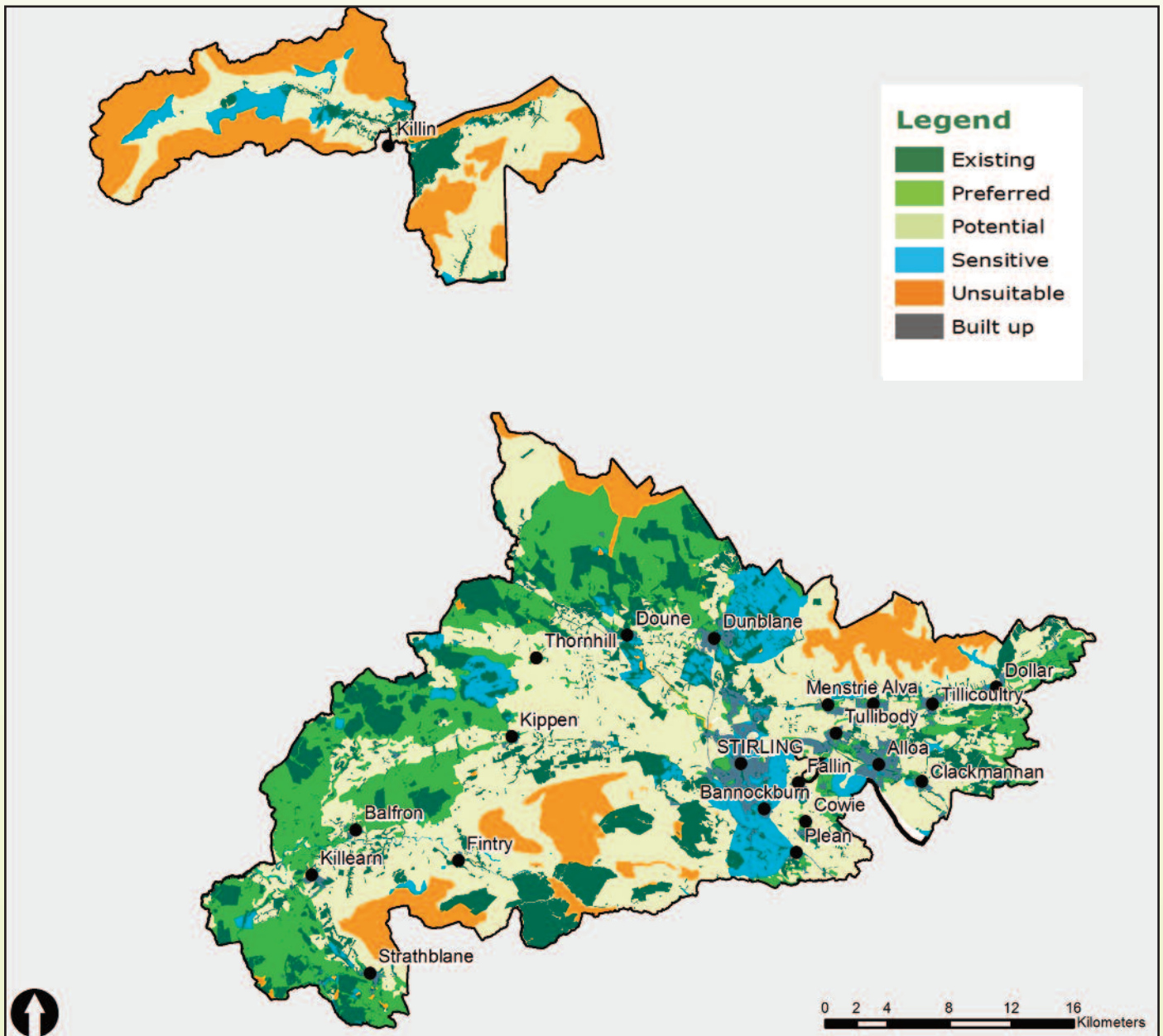
Built-up areas

It is critical to understand, however, that this mapping is necessarily **indicative**.

Map 6 Potential for Woodland Expansion
[Available to view at a larger scale via Stirling and Clackmannanshire Councils' internet mapping services]

Site specific constraints and opportunities exist within each land classification, but cannot be effectively recorded or depicted at a scale appropriate for the FWS. Detailed assessment of individual woodland creation proposals, as required by forestry legislation and regulations, remains the primary means of environmental safeguarding. The maps in this document are therefore intended only to guide readers towards suitable sites and to highlight areas where particularly objectives apply.

As a regional strategy, the SCFWS focuses on regionally significant sensitivities and environmental effects. Information on sensitivities for woodland expansion was therefore compiled using GIS datasets depicting the most important environmental features. In line with RTRP, each of the identified sensitivities was then assigned to the 'sensitive' or 'potential' category, depending on the likely level of constraint their presence would impose on *any type* of future woodland expansion. The categorisation of sensitivities are detailed in **Table 2** below and mapping of a number of sensitivities included in **Appendix V**.

4.3 Habitats Regulations Appraisal (HRA) and Geological Conservation Review sites

Habitats Regulation Appraisal
It is a statutory requirement that 'a competent authority must not authorise a plan or project unless, by means of the appropriate assessment, they can ascertain that it will not adversely affect the integrity of a European / Natura site.'

Accordingly the SCFWS has been the subject of an HRA which has identified that woodland planting in the following localities should be the subject of site specific limitations to ensure the integrity of these European sites are not adversely affected, that is:-

- **Flanders Moss SAC** (refer to restrictions)
- **The River Tay, River Teith, Endrick Water and Firth of Forth SACs** (refer to restrictions)
- **Firth of Forth SPA** (refer to restrictions)

Geological Conservation Reviews
In addition there are also various Geological Conservation Review (GCR) sites in the strategy area. They vary considerably in scale and nature, from the Gargunnock Burn to part of the southern escarpment of the Ochil Hills. Gartness covers around 10 sq.km, whilst Aucheneck is about 1.0 sq.km. Where appropriate it may be necessary for woodland expansion proposals to take account of impacts on the geo-diversity value of GCR sites and also consider where woodland planting could improve understanding, access and interpretation.

With respect to the selected sensitivities it is acknowledged there are a range of sites across Stirling and Clackmannanshire within the potential and sensitive categories but, on account of their designation, location or landscape character, the level of sensitivity for woodland expansion varies. Examples of such sites, together with an indication of appropriate woodland expansion opportunities that could be considered, are shown in Table 3 below.

4.4 Woodland Types
As well as setting out guidance on planning for forestry and woodland, RTRP also encourages planning authorities to consider what **types** of woodland they may wish to include within their Strategies; particularly in relation to the four main types listed and defined in Table 4 overleaf.

Table 2 List of Sensitivities

Woodland Type	Definition
Existing	FC National Forest Inventory dataset
Preferred	No significant constraints
Potential	Land capability for Agriculture Class 2-3.2 Local landscape designations Sensitive historic/archaeological landscapes (from HLA)
Sensitive	Natura 2000 sites and Ramsar Wetlands National and Local Nature Reserves SSSI Scheduled Monuments Conservation Areas Inventory-listed Gardens & designed landscapes Inventory Battlefields
Unsuitable	Land Capability for Forestry – Unsuitable Water bodies Operational and consented wind farm footprints
Built-up[1]	Historic land-use assessment (HLA) – built-up category

Table 3 Examples of Woodland expansion in Potential and Sensitive Areas
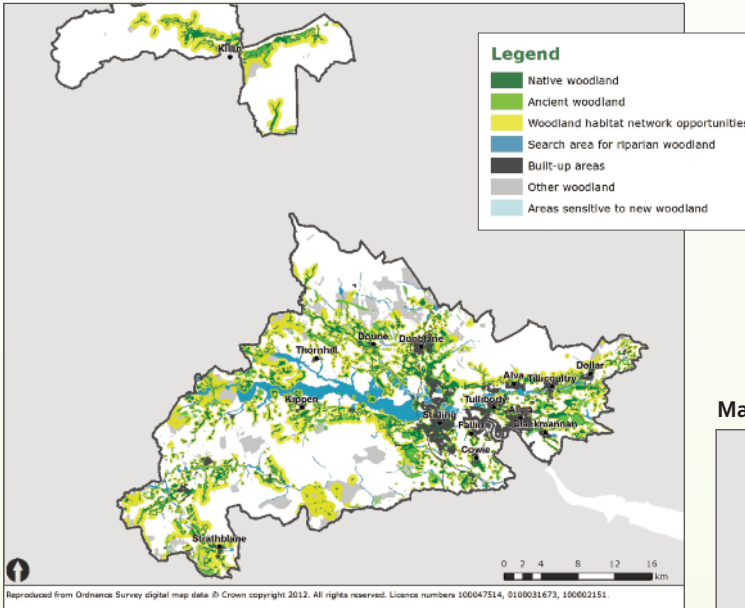
Site	Description	Classification	Scope for Woodland Expansion
Flanders Mosses	Flanders Mosses are designated a Special Area of Conservation for the raised lowland bog habitat	Sensitive	It is unlikely that any woodland expansion in this area would be considered appropriate
Blair Drummond & Castle Campbell (and other Designed Landscapes)	Trees and woods form a major element of the quality of the Designed Landscape and inevitably will require positive management	Sensitive	Woodland expansion and other woodland management proposals which would maintain and enhance the quality of the Designed Landscape would be considered appropriate
Areas around Inventory Battlefields - Bannockburn, Sheriffmuir, Sauchieburn & Stirling Bridge	Listed on Inventory of Historic Battlefields due to their significant cultural importance	Sensitive	Woodland expansion in relation to the areas immediately around settlements and where new woods would contribute to the delivery of WIAT/CSGN outcomes would be considered appropriate, particularly where woodland could be used to improve understanding, access and interpretation
Glen Lochay Woods	Site of Special Scientific Interest	Sensitive	Woodland expansion proposals which would enhance habitat quality and that wouldn't compromise the quality of designated site would be welcome.
Menstrie Glen	Area of important cultural heritage	Potential	Any woodland expansion / management proposals which could enhance the cultural heritage/landscape quality of the area would be considered appropriate

Map 7 Opportunities for New Native Woodlands

Legend
- Native woodland
- Ancient woodland
- Woodland habitat network opportunities
- Search area for riparian woodland
- Built-up areas
- Other woodland
- Areas sensitive to new woodland

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Map 8 Opportunities for Mixed Woodlands

Legend
- Search area for riparian woodland
- Wider range of opportunities
- Supporting resilience and diversification
- Enhancing designed landscapes
- Built-up areas
- Existing woodland of all types

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Table 4 "Right Tree in the Right Place" Woodland Types

Woodland Type	Definition
Native Woodlands	**Native woodlands contributing to integrated habitat networks** Woods composed of native species, matched to local site conditions, making use of natural colonisation where evident. They are managed mostly using low intensity or minimum intervention systems with an emphasis on developing the structural and species diversity appropriate to the woodland type. As well as providing biodiversity benefits, native woods are usually well fitted for water management and soil conservation, recreation and amenity, stock shelter, fishery enhancement and sporting uses. Some are also capable of producing high quality timber or woodfuel at low intensity.
Mixed Woodlands	**Mixed woodlands such as farm and riparian woodlands** Mixed species woodlands often including native broadleaves, traditional broadleaves (such as beech and sycamore) and conifers designed to provide year-round shelter, landscape enhancement, screening or enclosure, as well as the potential to provide products for local use. In a traditional estate setting they are often known as 'policy woods'.
Softwood Forests	**Forests to provide a source of softwood timber** Woods designed to provide a sufficient quantity and consistency of predominantly softwood timber for economically viable timber production. Careful design uses opportunities to protect and enhance biodiversity while also providing a backdrop for outdoor access and recreation. Modern softwood forests have substantial areas of open space, areas of native species and a growing emphasis on the use of mixed species and different silvicultural systems (where feasible) to increase diversity and resilience in the face of climate change.
Energy Forests	**All woodland types capable of producing fuelwood** Woodlands where fuel wood production is the principal objective e.g. short rotation coppice using willow and short rotation forestry or coppicing systems; particularly on lower quality ground. This type of planting can also be used in flood risk areas or areas of poor quality land, acting to stabilise soils and ameliorate pollution.

Native woodland and mixed woodland with a significant productive timber component are considered to be the two most appropriate types of woodland expansion for Stirling and Clackmannanshire ; descriptions of softwood and energy forests are included for general reference only.

In order to determine areas for potential woodland expansion, for these two woodland types – native woodland and mixed woodland – two maps have been developed using the indicative potential dataset as their basis, to ensure that key sensitivities were respected in each instance (see Maps 7 and 8 above).

Additional sources of data were used to draw out opportunities and different priorities; these include:

Integrated Habitat Network datasets - highlighting opportunities for new native woodland and as shown in **Appendix V** (Map A4 Integrated Habitat Network).

Land Capability for Agriculture - highlighting better quality agricultural land where the priority would be supporting existing agriculture, and more marginal areas where woodland could add value for farmers and the environment alike.

Indicative Flood Risk Map - highlighting the 'area of search' for new flood plain and riparian woodland to contribute to climate change adaptation.

Furthermore, and in order to give a local geographic context, these two woodland types have been mapped against the thirteen Landscape Character Types found within Stirling and Clackmannanshire and as shown in **Appendix V** (Map A1 Landscape Character), together with the seven key themes of the Scottish Forestry Strategy; thus showing how and where to target the delivery of these themes geographically across Stirling and Clackmannanshire.

Table 5 below shows the relationship between each Landscape Character area, potential woodland type and main Scottish Forestry Strategy theme.

It should be recognised, however, that other types of forest / woodland may be appropriate within each of these Landscape Character areas and equally that the forest / woodland types suggested may not be appropriate across the entire area of each. ■

Table 5 Opportunities for Woodland Expansion

Landscape Character Type	Native Woodland Potential	Main Match with SFS Themes(s) CC: Climate Change T: Timber BD: Business Development CD: Community Development EQ: Environmental Quality BIO: Biodiversity	Mixed Woodland Potential	Main Match with SFS Themes(s) CC: Climate Change T: Timber BD: Business Development CD: Community Development EQ: Environmental Quality BIO: Biodiversity
Valleys & Floodplains of the Lowlands	Yes (with some sensitivities)	CC, EQ, BIO	Yes (with some sensitivities)	CC, EQ, BIO
High, Massive, Rolling, Rounded Hills	Not suitable	Not applicable	Not suitable	Not applicable
Highland Straths	Limited	CC, BIO	Limited	CC, BIO
Highland and Islands Glens	Yes (with some sensitivities)	CC, EQ, BIO	Limited	CC, EQ, BIO
Inland Loch	Not suitable	Not applicable	Not suitable	Not applicable
Urban	Limited	CC, CD, A&H, EQ	Limited	CC, CD, A&H, EQ
Lowland Hill Margins & Fringes	Yes (with some sensitivities)	CC, BIO	Yes (with some sensitivities)	CC, T, BD, CD, A&H, EQ & BIO
Lowland Hills	Yes	CC, EQ, BIO	Yes	CC, T, BD, CD, A&H, EQ & BIO
Lowland River Valleys	Yes (with sensitivities)	CC, A&H, EQ, BIO	Yes (with sensitivities)	CC, T, BD, CD, A&H, EQ & BIO
Undulating Farmlands, Hills and Valleys	Yes	CC, BIO	Yes	CC, EQ, BIO
Lowland Valley Fringes	Yes (with sensitivities)	CC, A&H, EQ, BIO	Yes (with sensitivities)	CC, T, BD, CD, A&H, EQ & BIO
Upland Hills and Moorlands	Very limited	CC, EQ, BIO	Very limited	CC, EQ, BIO
Fragmentary character types	Very limited	CC, EQ, BIO	Very limited	CC, EQ, BIO

APPENDICES

[Appendices referred to in this document have not been included in the published version of the Strategy, but can be viewed online in both Stirling and Clackmannanshire Councils websites.]