



Scoping a new forestry plan for forests and woodland in East Fermanagh/East Tyrone

June 2019



An Agency within the Department of
**Agriculture, Environment
and Rural Affairs**
www.daera-ni.gov.uk

A living, working, active landscape valued by everyone

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Contents

Introduction

Forestry Planning
Participation and Engagement
Woodland Development
Forest Plans
Achievements
Scoping Topics

- 1 - Enhancing Landscapes
- 2 - Protecting Rivers and Lakes
- 3 - Enabling Enjoyment of Forests by Local People and Visitors
- 4 - Promoting Afforestation and Sustainable Forestry
- 5 - Supplying Sustainable Wood Products
- 6 - Regenerating Forest Land
- 7 - Growing Trees Sustainably
- 8 - Minimising the use of Pesticides and Fertilisers
- 9 - Targeting Invasive Species
- 10 - Protecting Habitats and Species
- 11 - Restoring Peatland Habitats

Appendices

Appendix I - Composition of Forest Service forests

Appendix II - Environmental Regulation, Designated Areas,
and the Historic Environment

Appendix III - Strategy for Restoring Peatland Habitats

Introduction

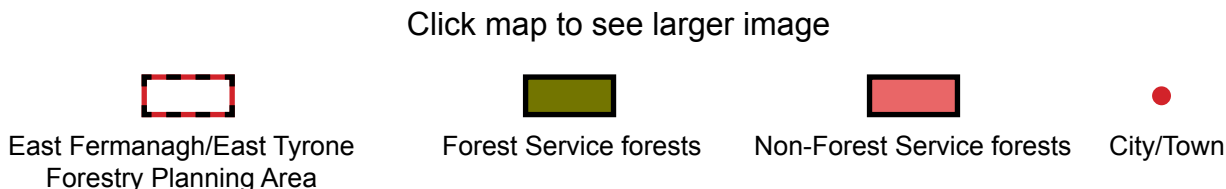
Forestry Planning

Forestry planning facilitates the delivery of the many different services our forests and woodlands provide, such as timber production, carbon sequestration, biodiversity, and recreational opportunities. Reviewing forest plans from time to time ensures that they are up to date and allows us to monitor our forests to enable them to continue to meet the diverse and sometimes competing needs of people, wildlife, and wood processing industries.

The East Fermanagh/East Tyrone Forestry Planning Area (FPA) is the basis for describing forests and woodlands for forestry planning purposes in the east of Co. Fermanagh and the south and east of Co. Tyrone, and a small section of Co. Derry/Londonderry from Moneymore southwards. The FPA extends from the eastern and southern border areas of Co. Fermanagh and Co. Tyrone respectively, westwards towards Upper Lough Erne and Enniskillen, and north-eastwards, through the Clogher Valley, towards Lough Neagh and the Sperrins in the north east, and the Carrickmore Hills to the north. The eastern part of the FPA includes the arable fields and rolling drumlins to the west of the River Blackwater, which forms the border with Co. Armagh.

The [draft Northern Ireland Woodland Register](#) and basemap describes the location, extent and type of existing forests and woodlands in the East Fermanagh/East Tyrone FPA, as shown in Map 1. Forests and woodland are estimated to cover around 16,650 hectares (ha), which is 9% of the FPA. Just over half (56%; 9,375 ha) of the area of forest and woodland in East Fermanagh/East Tyrone FPA is managed by Forest Service.

Map 1: Forests and woodland within East Fermanagh/East Tyrone Forestry Planning Area (FPA)



Forests managed by Forest Service within the East Fermanagh/East Tyrone FPA are predominantly [coniferous](#) and located in upland areas on land of limited agricultural potential. Forest management is planned to meet a range of sustainable development objectives and reflects the requirements of the [UK Forestry Standard](#), which is the Government’s statement on [sustainable forestry](#). By promoting sustainable forestry, Forest Service will also seek to realise the Department of Agriculture, Environment and Rural Affairs’ aim of “A Living, Working, Active Landscape Valued by Everyone”, and support the work of the Department for the Economy, on energy policy, and the Strategic Investment Board in delivering a public sector energy strategy.

The areas and composition of forests managed by Forest Service are given in [Appendix I](#).



Non-Forest Service forests and woodlands in the East Fermanagh/East Tyrone FPA are mainly comprised of a large number (more than 3000) of small [broadleaf](#) or [mixed woodlands](#), less than 1 ha in size, scattered throughout the lowland farmed landscape, and in and around the towns of Enniskillen, Cookstown and Dungannon. There are a few larger areas of broadleaved and mixed woodland (up to around 100 ha), including the woodland in Castle Coole Estate, which is partly owned by the National Trust, and at Caledon and Tynan, on the banks of the River Blackwater. The FPA includes a small number of mainly coniferous plantations (up to 50 ha), which are mostly located in the Clogher Valley and the upland area north of Fivemiletown.

More detailed information on non-Forest Service forests and woodlands, and on woodland owners' management objectives, may be available for woodland managed by public bodies, or where the land is managed under a forestry grant scheme, or has been subject to a felling licence.

[Regional Landscape Character Assessments](#) (RLCA) are descriptions of the landscape for specific areas throughout the UK and provide further information on forests and woodland throughout the area. Forests and woodlands in East Fermanagh/East Tyrone FPA predominately occur in the Clogher Valley and Slieve Beagh RLCA in the south of the FPA, and Carrickmore Plateau and Pomeroy Hills RLCA to the north of the FPA.

East Fermanagh/East Tyrone FPA includes a limited number of important areas of [native](#) and [semi-natural woodland](#) that are designated as [Area of Special Scientific Interest](#) (ASSI), including Glenmore Wood and Rehaghy Wood. The FPA also includes important examples of parkland, in Castle Coole ASSI, and, Caledon and Tynan ASSI. Lough Neagh SAC/ASSI and Cullentra Lough ASSI each include alluvial woodland as a feature.

Designated areas adjacent to and on land managed by Forest Service are listed in Table 1 of [Appendix II](#).

Participation and Engagement

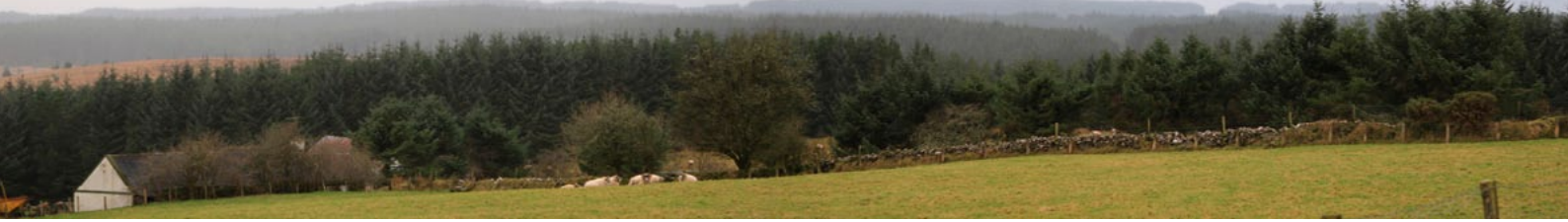
Forestry planning involves engaging with people, including stakeholder organisations and relevant bodies, to ensure that all potential interests are considered, including those of specialist interest groups and the local community. East Fermanagh/East Tyrone FPA includes areas of Fermanagh and Omagh District Council, and Mid Ulster District Council, respectively.

Scoping is carried out to explore which topics identified in this document are relevant to you as a stakeholder, and to find out if you would like to engage with the forestry planning team in relation to any opportunities or areas of interest that you think are relevant to the development of a forestry plan.

Woodland Development

Approximately 9% of the 16,650 ha of forest and woodland in the East Fermanagh/East Tyrone FPA is included in the [Ancient Woodland Inventory](#) and described as woodland on sites which have been continuously wooded since at least 1830. The inventory, which is based on a combination of archive evidence and field survey, also provides some information on the composition of woodland. Much of this woodland is easily accessible, including parts of Favour Royal, Parkanaur, Pomeroy, Drum Manor, Knockmany, and Cookstown Forests.

State forest expansion in East Fermanagh/East Tyrone FPA commenced in 1911 with the acquisition of 189 ha of mixed agricultural land and woodland in what was to become Knockmany Forest. Forest expansion continued with the acquisition of relatively small parcels of land forming Favour Royal, Fardross and Mullaghfad Forests. Although there was an increased awareness in the early post war years of the need to achieve a degree of self-sufficiency in timber, the area of new planting was relatively small with [afforestation](#) taking place in areas such as Spring Grove and Jenkin.



In 1948 a Ministry of Labour report made specific reference to [marginal agricultural land](#) in Fermanagh and south Tyrone, and precipitated a steep increase in the rate of afforestation during the 1950s, which largely took place in the uplands around the towns of Lisnaskea and Fivemiletown. Forestry development in lowland areas was assisted by the acquisition of small demesnes, including Drum Manor and Lissan, near Cookstown, and Pomeroy, which became the location of a forestry school, founded in 1961, and remained in use for over forty years. Afforestation rates continued to increase throughout the 1960s and peaked in the 1970s. Although the area of new planting has decreased every decade since the 1970s, further expansion continued until the early 1990s.

The expansion of non-Forest Service woodland from around 1% of the land area, or less, at the beginning of the 20th Century, is not well documented. Information available from the private woodland inventory of 1975 –1979, and Forest Service records indicates that approximately 37% of the current non-Forest Service woodland area is comprised of grant-aided planting since 1970, with the remainder divided between woodland referred to in the private woodland inventory, and woodland derived from scrub and woodland succession (as noted in reports of the [Northern Ireland Countryside Survey 1998 and 2007](#)).

Forest Plans

Forest plans provide the direction for interventions that will affect the future appearance and composition, or design, of forests, such as areas of felling ([coupes](#)), the [regeneration](#) of felled areas, and management to retain areas under continuous woodland cover, and changes to the type of trees that grow in the forest.

Forest design aims to ensure that there is continuity of woodland for timber and wood products, and the delivery of a range of non-timber outcomes, including landscape improvement, water protection, recreational areas for people to use, and protection of habitats, including ancient and [native woodland](#). Forest Service seeks greater involvement of people in the revision of its forest plans, which has taken place on a five yearly cycle for many decades. The forest management plan for East Fermanagh/East Tyrone forests was last reviewed in 2015 ([East Fermanagh/East Tyrone Planning Review 2015](#)). The [Forestry Act \(Northern Ireland\) 2010](#) placed a duty on Forest Service to promote afforestation and sustainable forestry. Accordingly, Forest Service plans will, in future, include references to non-Forest Service forest and woodland.

Achievements

Achievements of the previous forest plan for forests in the East Fermanagh/East Tyrone FPA during the period 2015 – 2018 are highlighted in the box below.

- Implementing forest design plans for 479 hectares of forest following clearfelling, including creating 6 hectares of additional [water buffer](#) areas to enhance water quality and protect aquatic habitats.
- Creating a '[red squirrel corridor](#)', planted and enriched with a variety of native tree species, through Crocknagrally and Mullaghfad Forests, to provide a 414 hectare reserve for red squirrels and other wildlife.
- Establishing a formal agreement to work collaboratively with Mid Ulster District Council to develop walking and running trails, a play park and seating areas for families and children in Pomeroy Forest.
- Grant aiding the creation of 79 hectares of new woodland.
- Producing an average of 62,000 cubic metres of timber each year to supply the timber processing industry, creating jobs in rural areas and providing resources to reinvest in forests.
- Regenerating 418 hectares of Forest Service forest land after [clearfelling](#), and planting over 1 million trees.




Scoping Topics

Forestry planning opportunities are presented under 11 scoping topics which are intended to reflect the various areas of interest to stakeholders, these are as follows:

- Enhancing Landscapes
- Protecting Rivers and Lakes
- Enabling the Enjoyment of Forests by Local People and Visitors
- Promoting Afforestation and Sustainable Forestry
- Supplying Sustainable Wood Products
- Regenerating Forest Land
- Growing Trees Sustainably
- Minimising the Use of Pesticides and Fertilisers
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Appendices

A summary of the composition of Forest Service forests is provided in [Appendix I](#). Details of environmental regulation requirements, designated areas, and historic monuments are provided in [Appendix II](#). Forest Service's strategy for restoring peatland habitats is provided in [Appendix III](#).



1 - Enhancing Landscapes

“Through the appreciation and analysis of landscape context, forests and woodlands can be designed so that they make a positive contribution to the character of a local area, and in some areas create attractive new landscapes.”

[UK Forestry Standard, 4th Edition \(2017\)](#)

The East Fermanagh/East Tyrone Forestry Planning Area (FPA) contains a diverse range of habitats and landscape types, including the rolling agricultural landscape of the Southern Drumlins and Orchards extending to the county border formed by the River Blackwater in the southeast, the low-lying agricultural landscape surrounding the shores of Lough Neagh in the northeast, the moorland dominated summit of Slieve Beagh in the southwest, the broad, open topography of the Clogher Valley, and the irregular low hills and plateau leading northwards towards Pomeroy and Cookstown.

Most (69%) of East Fermanagh/East Tyrone FPA is in Clogher Valley and Slieve Beagh [Regional Landscape Character Areas](#) (RLCA), West Lough Neagh Drumlins RLCA, and Southern Drumlins and Orchards RLCA. The remaining area includes southern sections of Carrickmore Plateau and Pomeroy Hills RLCA and Omagh Basin RLCA, western sections of Lough Neagh Basin RLCA and eastern sections of Lough Erne Lakeland RLCA.

Forest Service managed forests are predominantly located in the uplands of Clogher Valley and Slieve Beagh RLCA and Carrickmore Plateau and Pomeroy Hills RLCA, where their presence is visible from several miles in any direction and some of Northern Ireland’s larger forests are located here. Among the smaller Forest Service managed forests, Parkanaur is located within Southern Drumlins and Orchards RLCA, Drum Manor is located in West Lough Neagh Drumlins RLCA, and Pubble is located in Lough Erne Lakeland RLCA. For planning purposes, Forest Service forests in this area are grouped into two forest landscape units: East Fermanagh and East Tyrone.

Non-Forest Service woodlands include a number of larger mainly [coniferous](#) plantations in the uplands of Ballyness Mountain and Logue’s Hill close to Clabby Forest, many fragmented small [broadleaved](#) and [mixed woodlands](#) scattered throughout the lowland areas of the FPA, but particularly in the agricultural landscapes of Clogher Valley and Slieve Beagh RLCA and Southern Drumlins and Orchards RLCA, and some more distinctive broadleaved woodlands and parklands, such as Castle Coole Estate on the periphery of Enniskillen.

Forests and woodlands, therefore, contribute to the various features of the East Fermanagh/East Tyrone landscape, and can enhance the experience of visitors to the area. Foresters acknowledge that visual impacts of forests are important, and these can be improved by modifying the design of a forest to compliment the local landscape and minimise visual impacts by removing straight lines or softening hard edges, and, by encouraging more tree planting.

Opportunity: Identify where the appearance of forests in the landscape can be improved by modifying the shape of felling boundaries, and carefully designing regeneration of felled areas.

Opportunity: Consider the potential for softening ‘hard’ forest edges by encouraging the afforestation of neighbouring agricultural land, subject to the landowners’ long-term intentions.

Activity: Undertake visual assessments of Forest Service forests from key viewpoints in the surrounding countryside to determine the potential influence forest management decisions could have on the landscape.

Activity: Apply [UK Forestry Standard](#) requirements and forest landscape design guidelines, using Geographic Information System (GIS) tools to undertake assessments and present options.



Outcomes	Benefits
<ul style="list-style-type: none">- Increased potential to demonstrate landscape improvements using the regeneration and design plans- Illustrate forests' positive contribution to tourism in the East Fermanagh/East Tyrone FPA- Stakeholders can inform the planning process and contribute to forest design planning	<ul style="list-style-type: none">- Attractive forest landscape views from scenic routes throughout the East Fermanagh/East Tyrone FPA

[Click the image for a larger version](#)

[Click the image for a larger version](#)

2 - Protecting Rivers and Lakes

“Forests and woodlands have a close relationship with our water resources, and forest management and water quality are closely linked. Sustainable forest management is essential to ensure the supply of good-quality fresh water, provide protection from natural hazards such as flooding or soil erosion and to protect the needs of aquatic species.”

[UK Forestry Standard, 4th Edition \(2017\)](#)

The majority of Forest Service forests in East Fermanagh/East Tyrone FPA lie within the catchments of Colebrooke, Blackwater, Camowen, Ballinderry, and Finn Rivers, and Upper Lough Erne. Rivers and lakes in the Department of Agriculture, Environment and Rural Affairs (DAERA) Public Angling estate in forested catchments include the Colebrooke River, which originates in the Slieve Beagh Mountains and Enagh Lough, close to the town of Caledon.

For monitoring purposes under the [Water Framework Directive](#), part of the East Fermanagh/East Tyrone Forestry Planning Area lies in the [North Western River Basin District](#) and the Neagh Bann River Basin District. Monitoring undertaken by Northern Ireland Environment Agency (NIEA) as part of the 2nd cycle of the Water Framework Directive indicates that no rivers in the East Fermanagh/East Tyrone FPA are at risk from acidification.

The main forest design activity to protect water in these upland forests has been the creation of [buffer areas](#) of open ground between forestry land and water bodies. However, as the benefits of creating [native broadleaved](#) woodland adjacent to aquatic habitats have also become more widely recognised, the focus of forestry planning has shifted towards enabling the establishment of [riparian woodland](#), where it is likely to be beneficial. An action to create riparian woodland in Forest Service forests is included in the cross-Departmental strategy '[Sustainable Water - A Long-Term Water Strategy for Northern Ireland](#)' (2016).

[Afforestation schemes](#), including the Forest Expansion Scheme, and the 'Establishment of [Native Woodland](#) under 5 ha' option of the Environmental Farming Scheme, provide opportunities to deliver additional water protection measures through the creation of [riparian woodland](#).

Forest planning and design can also avail of newly available datasets which use topographical and rainfall information to highlight areas most at risk of contributing to erosion and diffuse pollution. The mapping of these risk areas enables better positioning of water protection measures, such as [riparian woodland](#) or other mechanisms to intercept and trap pollutants, with the goal of improving water quality and the aquatic environment.

Opportunity: Identify the potential to increase the extent of riparian woodland by colonisation or planting.

Opportunity: Use new sources of information to review the internal design of forests.

Activity: Identify [water buffer areas](#) that have become colonised by native woodland, and where establishment of riparian woodland by planting is appropriate.

Activity: Use data to improve forestry planning, including the revision of planned felling coupes, forest design plans, and [forest regeneration](#) plans.



Outcomes	Benefits
<ul style="list-style-type: none">- Assurance that risks to the ecological condition of features due to forest operations will be appropriately managed- Establishment of new native riparian woodland contributing to the Northern Ireland Long-Term Water Strategy target	<ul style="list-style-type: none">- Significant contribution to biodiversity, and to angling, arising from the promotion and practice of sustainable forestry- Long-term protection of water quality resulting from increased extent of riparian woodland



3 - Enabling Enjoyment of Forests by Local People and Visitors

“Access to woodlands is a public benefit that can improve people’s health and well-being.”

“Woodland visits help build an understanding and appreciation of the forest environment. Access to woodlands can be particularly beneficial for people from urban areas, people from disadvantaged social backgrounds, and people with disabilities...”

[UK Forestry Standard, 4th Edition \(2017\)](#)

The [Forestry Act \(Northern Ireland\) 2010](#) promotes and encourages the enjoyment and recreational use of Forest Service land by the public, including a right of pedestrian access, and promotes the social benefits of other woodland. Partnership arrangements between Forest Service and Councils have been developed in keeping with the implementation of the Forest Service’s [Strategy to Develop the Recreational and Social Use of Our Forests](#).

Local people use Forest Service forests close to towns and settlements, including Drum Manor, Cookstown, Parkanaur and Spring Grove, extensively for walking. Car parks to facilitate access are also provided at Favour Royal, Carnmore, Knockmany, Parkanaur, Pomeroy and Spring Grove Forests. A number of forests include sections of the Ulster Way between Co. Fermanagh and Co. Monaghan, including Tully, Mullaghfad and Favour Royal. Tully Forest also includes a section of the Slieve Beagh Way.

Non-Forest Service woodlands in the East Fermanagh/East Tyrone FPA also provide opportunities for users, including mountain bike trails in Blessingbourne, and a woodland walk along the Glenmore trail, near Ballygawley, and Benburb Valley Park, near Dungannon. The Woodland Trust manages a number of woodlands in the FPA, including Cabin Wood, near Cookstown, Lettervad Wood, near Dungannon, and Mill Race Wood, near the village of Knocks.

Both Fermanagh and Omagh District Council and Mid Ulster District Council manage a number of woodlands and parks for the well-being of local communities, including Grange Park in Omagh, and Dungannon Park close to the town of Dungannon. In conjunction with Outdoor Recreation Northern Ireland, Mid Ulster District Council is developing a Parks and Play Strategy and an Outdoor Recreation Strategy, which will inform the provision of green infrastructure for outdoor recreation within the Mid Ulster area.

Opportunity: Continue to discuss options for maintaining the existing provision of facilities and improving access to forests with Councils and other partners, and potential partners.

Activity: Liaise with Councils to increase the recreational use of forests.

Activity: Liaise with public bodies and neighbours to discourage activities presenting a risk to other forest users.



Outcomes	Benefits
<ul style="list-style-type: none">- Local people are able to make greater use of forests in their area- Promoting recreational use of forests- Delivering sustainable development in partnership with others	<ul style="list-style-type: none">- Health and well-being- Development of local businesses



4 - Promoting Afforestation and Sustainable Forestry

“The Department’s General Duty of promoting afforestation and sustainable forestry refers to all forests in Northern Ireland, not only the Department’s forest land. The Department recognises the valuable contribution that forestry makes in achieving its vision of a thriving, sustainable rural community. Through the Forest Service, it aims to ensure the sustainability of forests as an invaluable heritage, expansion of tree cover, [and] management of forests in a way that increases biodiversity, enhances the landscape and assists in improving water quality.”

[A Delivery Plan for the Implementation of the Forestry Act \(Northern Ireland\) 2010](#)

“The Department’s purpose is to support a living, working, active landscape valued by everyone”
Dr. Denis McMahon, Permanent Secretary of the Department for Agriculture, Environment and Rural Affairs, 2018.

Northern Ireland Public Opinion of Forestry Surveys, conducted regularly since 2005, have consistently found that almost all respondents believed that forestry was worth supporting, to provide places for wildlife to live and for recreation, and most respondents would like to see more woodland locally.

[Public Opinion of Forestry 2019, Northern Ireland](#)

In addition to the many other benefits forests and woodland provide for people, it is Government policy to promote forest expansion to mitigate both climate change and flood risk. Operation of forestry grant schemes (under the Rural Development Programme, Northern Ireland) and [Felling Regulations](#) provide opportunities for Forest Service to promote the delivery of [ecosystem services](#) from new and regenerated woodland, through the use of appropriate forest design and tree establishment techniques.

Information published on the DAERA website shows the extent of land potentially suitable for [afforestation](#), and where afforestation can be of benefit in terms of flood risk mitigation.

- [Indicative map for woodland creation](#)
- [Opportunity mapping for woodland creation to reduce flood risk in Northern Ireland](#)
- [Quantifying the hydrological effect of woodland creation in the Camowen and Drumragh catchments, Omagh, Northern Ireland](#)

Recent research commissioned by Forest Service and prepared by Forest Research (Opportunity mapping for woodland creation to reduce flood risk) demonstrates how afforestation can also contribute to flood alleviation by identifying priority areas for woodland creation to benefit flood risk management and mitigation. The damaging impact of extreme rainfall and corresponding localised flooding is illustrated by the events in 2010 when the Colebrooke River burst its banks near Lisnaskea, causing considerable damage, and demonstrating the need for action to manage flood risk in the future.

Forestry planning can seek to identify opportunities for woodland expansion to deliver benefits that are complementary to Forest Service forests by contributing to the local landscape character, and increasing connectivity between areas of neighbouring non-Forest Service woodland in the landscape.

Information on the potential contribution of woodland to community development, and its capacity to deliver ecosystem services, is integral to understanding the contribution of sustainable forestry to **a living, working, active landscape valued by everyone**. Relevant information can be captured from casual inspection of woodland adjacent to Forest Service forests and used to assess its potential. Consideration of non-forestry uses of land adjacent to forests can also be relevant to the Department’s purpose, and may lead to opportunities to realise both environmental and economic benefits.



Opportunity: Identify potential for promoting woodland expansion adjacent to Forest Service forests, where appropriate.

Opportunity: Review the extent of non-Forest Service woodland in the East Fermanagh/East Tyrone Forestry Planning Area, and the range of pressures that could affect its sustainability.

Activity: Assess provision of **ecosystem services** by non-Forest Service woodland adjacent to forests.

Outcomes	Benefits
<ul style="list-style-type: none"> - Landscape improvement through tree planting - Baseline information on woodland management 	<ul style="list-style-type: none"> - Woodland ecosystem services, benefitting people, the environment, and the economy - Landscape scale woodland management



5 - Supplying Sustainable Wood Products

“Our forests support development of the Northern Ireland economy by supplying wood for industrial use. We sold 414,000 cubic metres of logs for £9.95 million, and we estimate that £24 million of value was added by industry in harvesting, timber haulage, and manufacture for construction, fencing, pallet and packaging, and energy. We obtained more of our timber supplies from tree thinning operations as part of our strategy to extend the life of plantations and reduce the impact of forestry operations on the environment.”

[Forest Service Annual Report 2015 - 2016](#)

Timber harvesting operations are managed to avoid adverse environmental impacts, particularly preventing movement of sediment and pollutants into watercourses. Since 2015 East Fermanagh/ East Tyrone forests have produced, on average, just over 62,000 cubic metres of timber per year, mainly from [clearfelling](#). To provide assurances of sustainable management, Forest Service forests and management are subject to a periodic assessment and annual audits of compliance by an independent certification body to ensure they meet the requirements of both the Forest Stewardship Council® (FSC)® (Licence code: FSC-C084232), and, the Programme for Endorsement of Forest Certification (PEFC) (Licence code: PEFC/16-40-1924), each of which uses the [UK Woodland Assurance Standard](#). As a result of FSC® and PEFC forest management and ensuing ‘chain of custody’ certification components, wood products produced from Forest Service forests can be marketed by processors using the logos of the FSC® and PEFC, signifying they have come out of responsibly managed forests.

Over time, forest plans will seek to reduce the proportion of the total amount of timber produced by [clearfelling](#), and, subject to risk of [windthrow](#), to increase the amounts produced both by [thinning](#) of plantations that will eventually, be clearfelled, and by using [low impact silvicultural systems \(LISS\)](#).

Opportunity: Review the timing and boundaries of planned felling, to complement landscape design and enhance water protection, using innovative Geographic Information Systems (GIS) tools and datasets.

Opportunity: To optimise the supply of timber from thinning and use of LISS, including [continuous cover forestry](#).

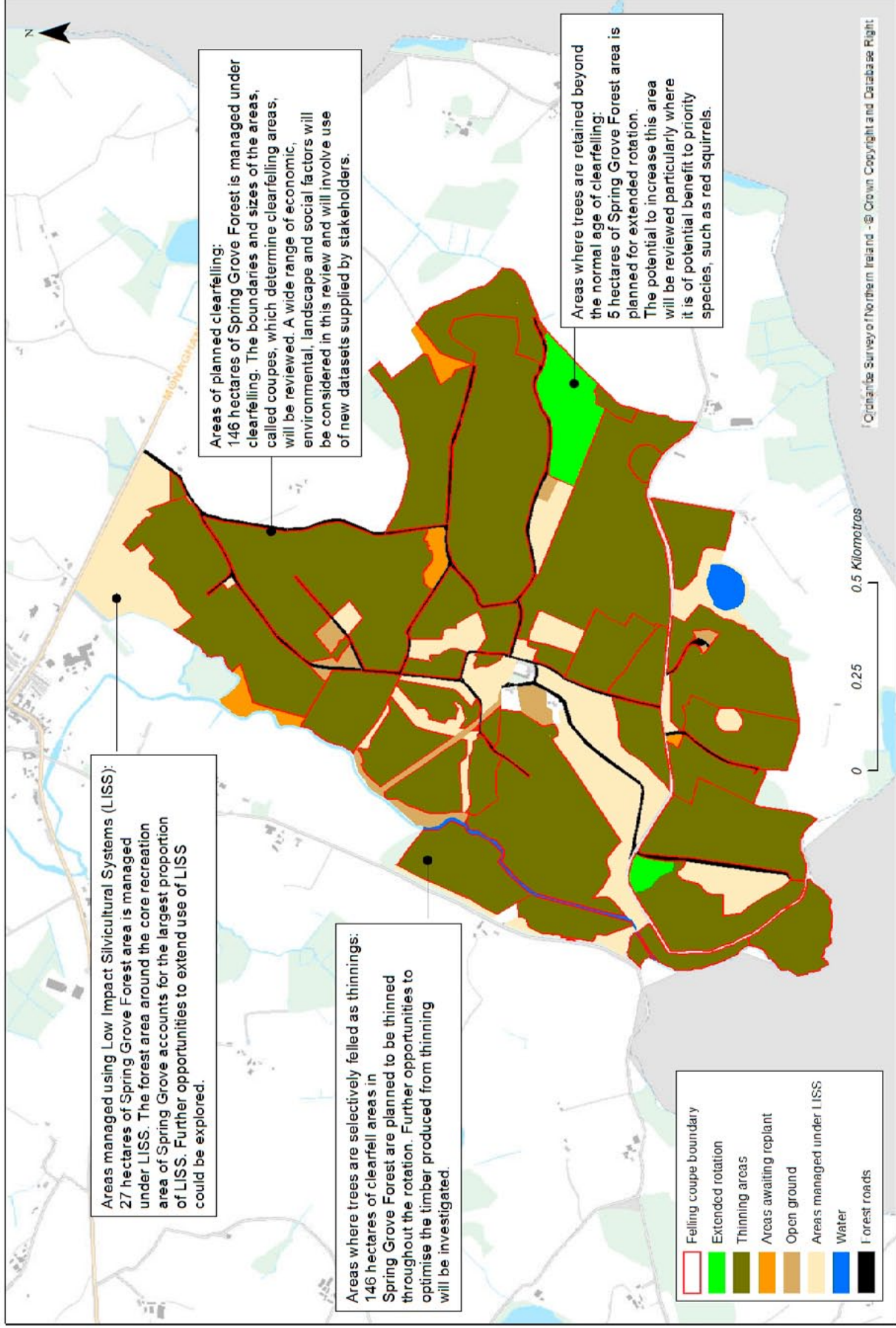
Activity: Make use of advanced GIS tools and datasets to improve the design of felling coupes.

Activity: Optimise thinning in East Fermanagh/East Tyrone forests, and enhance planning capability.

Activity: Develop and apply a rationale for identifying further areas where the use of LISS is appropriate.

Outcomes	Benefits
<ul style="list-style-type: none"> - Maintain supply of certified timber - Improved knowledge of future timber availability - Greater resilience of timber availability through the use of alternative silvicultural systems 	<ul style="list-style-type: none"> - Sustainable economic activity in the rural landscape - Industrial output of home produced wood products to a variety of markets, including construction, agriculture, energy, and domestic heating

Supplying Sustainable Wood Products: Opportunity to Review Harvesting Plans in Spring Grove Forest



6 - Regenerating Forest Land

“Forest regeneration is the act of renewing tree cover by establishing young trees naturally or artificially - generally, promptly after the previous stand or forest has been removed. The method, species, and density are chosen to meet the goal of the landowner.”

[Land use, Land-Use and Forestry Fact Sheet 4.12 Intergovernmental Panel on Climate Change](#)

Regeneration of forest land after felling (or, occasionally, after destruction by fire) is an opportunity to improve the design of a forest to meet longer term objectives, including enhancing the landscape, protecting water, and, by using a wider range of tree species, improving wildlife habitats and increasing the resilience of the forest. Felled areas may be replanted, or allowed to regenerate naturally from seed, or, used to include more open ground in a forest. In some circumstances wood production can be increased by, for example, using trees grown from seed harvested in seed orchards.

The development and improvement of forest design and regeneration plans is a significant forest management activity, involving extensive engagement with Government bodies, organisations, local people, and other stakeholders. Forest design plans have resulted in the creation of additional [water buffer areas](#), some of which are suitable for establishing new [native woodland](#). Forestry planning has also been undertaken in relation to non-Forest Service forests and woodland in the FPA in conjunction with the regeneration of areas subject to [felling regulation](#).

Management of forests under some [low impact silvicultural systems \(LISS\)](#) involves making use of natural regeneration, where it occurs, to meet regeneration requirements, where necessary, and supplementing it by planting, if required.

Opportunity: Review and revise forest design and forest regeneration plans, to include more native broadleaved trees and open ground, and favour the use of a wider range of conifer species for regeneration, where appropriate.

Opportunity: Revise felling and regeneration plans to increase age, species and structural diversity in forests.

Opportunity: Specify the use of more productive Sitka spruce planting material in regeneration plans, where site conditions are suitable.

Activity: Assess the suitability of current and planned water buffer areas for the establishment of new native woodland.

Activity: Identify areas suitable for use of alternative conifer species, including Norway spruce (*Picea abies*), Douglas fir (*Pseudotsuga menziesii*) and western red cedar (*Thuja plicata*).

Activity: Identify areas where wildlife habitat can be enhanced by planting a wider range of tree species.

Activity: Identify areas managed as LISS where supplementary underplanting is appropriate.

Outcomes	Benefits
<ul style="list-style-type: none"> - Regeneration plans identifying the establishment of native woodland adjacent to watercourses, and the appropriate use of alternative conifer species 	<ul style="list-style-type: none"> - Forests which deliver better ecosystem services and have more natural capital - Forests that are more resilient to the effects of disease, climate change and other pressures

7 - Growing Trees Sustainably

“The essential consideration for the landowner or manager is to ensure that the forest thrives and is not degraded. This includes protecting young trees to make sure they become successfully established, and protecting the health of forests and woodlands, for example by ensuring they have the necessary resilience to cope with emerging threats and changing conditions – in particular climate change. It also involves maintaining levels of fertility and site potential for future rotations.”

[UK Forestry Standard, 4th Edition \(2017\)](#)

Growing trees sustainably involves monitoring the health and vitality of the forest, and responding appropriately to threats. East Fermanagh/East Tyrone forests are vulnerable to a similar range of threats occurring elsewhere in Northern Ireland, including harm to forest users and the environment arising from criminal or anti-social behaviour, and the effects of fire, pests and diseases, wind and storm damage, and reduction of soil fertility. Areas recently planted with native and other **broadleaved** trees, including new **riparian woodland**, are particularly susceptible to damage by deer and uncontrolled livestock grazing. Cattle, sheep, deer and, in some locations, feral goats are also able to hinder or prevent establishment of woodland by colonisation or natural regeneration. Management of deer to protect young trees from damage is routinely undertaken in a number of forests, including Knockmany, Grogey, Mullaghfad and Fardross.

Additionally, tree diseases can also impact forest growth and development. While the ongoing impact of ramorum disease on larches (*Larix spp.*) in forest plantations remains a concern, it is widely expected that the effects of ash dieback disease (*Hymenoscyphus fraxineus*) will become increasingly widespread in woodland and trees in the wider environment.

While the risk of damage from many of these threats is managed by operational measures and contingency planning, both monitoring and regularly liaising with neighbours, partners and stakeholders is essential.

Opportunity: Liaise with neighbours and statutory bodies in relation to controlling damage to woodlands, and preventing deer poaching and other wildlife crime.

Opportunity: Monitor the growth of trees in areas regenerated after felling, and develop plans to maintain fertility, using targeted fertiliser applications where necessary.

Activity: Collate and analyse monitoring information, including assessments of tree growth and nutrition.

Activity: Identify areas where fertiliser applications will be required to maintain tree growth.

Outcomes	Benefits
<ul style="list-style-type: none"> - Updated monitoring and contingency plans - Design plans include appropriate buffer zones adjacent to watercourses and lakes to permit fertiliser application, where necessary 	<ul style="list-style-type: none"> - Healthy, safe forests - Protected natural environments

8 - Minimising the use of Pesticides and Fertilisers

“The use of artificial pesticides and fertilisers is generally a last resort in practising sustainable forest management...Pesticides and fertilisers are expensive, and should only be deployed in a reactive way to protect trees when a problem has been identified or is highly likely. Their use on special sites such as ancient woodland is particularly discouraged.”

[UK Forestry Standard, 4th Edition \(2017\)](#)

Pesticide use in Forest Service forests is restricted by statutory regulation and the adoption of a specific integrated pest management strategy to minimise pesticide use. Under this strategy, non-chemical control options are considered, and used, unless shown to be impractical, ineffective, excessively costly, or likely to carry the risk of causing harm to people and the environment. In principle, pesticides are used as a last resort, and, the use of specific pesticides by the forestry industry is kept under constant review.

There are two main uses of chemical control for pests and diseases in forests; one is to protect forests from the fungal disease causing stem rot, *Heterobasidion annosum*, using a solution of urea applied to tree stumps after cutting. The other is to protect trees replanted after felling from insect damage caused by the pine weevil (*Hylobius abietis*), on a proportion of sites, during the initial 1 – 2 years. The option currently available involves the use of a neonicotinoid, acetamiprid, applied to trees before planting, and, where necessary after planting. Control of invasive rhododendron (*Rhododendron ponticum*) and laurel (*Prunus laurocerasus*) is normally achieved using a glyphosate-based herbicide, in combination with cutting.

Environmental monitoring of water bodies carried out in recent years has identified both detections of pesticides and biological effects. Although forestry may not be the only source of pesticides, it has not been conclusively ruled out by the Northern Ireland Environment Agency (NIEA), given the targeted use in forestry of some of the pesticides detected.

Fertilisers have been routinely used to enable woodland establishment and promote tree growth in upland forests since the early 1960s, and, until around 2000, aerial fertiliser application to forests had taken place on an annual basis. Fertiliser use followed prescriptions for different tree species and site conditions that had been developed over many decades of research and monitoring. Since 2000, increasing areas of forest that had required fertiliser have been felled. Consequently, it is increasingly likely that a proportion of regenerated areas will become deficient in nutrients and may again require fertiliser to maintain growth.

Opportunity: To contribute to the minimisation of pesticide use by planning the sequencing of felling years and increasing the area of forest managed under low impact silvicultural systems (LISS).

Opportunity: To maximise the efficiency of fertiliser use in terms of uptake, and growth.

Activity: Environmental monitoring of forested catchments, in conjunction with NIEA.

Activity: Identify thresholds for fertiliser applications based on balancing economic returns and potential environmental effects.

Outcomes	Benefits
<ul style="list-style-type: none"> - Pesticide use is minimised to the extent that residues are significantly below environmental monitoring thresholds - Fertiliser applications will take place without affecting water quality 	<ul style="list-style-type: none"> - Economic activity in forests contributing to the health and well-being of local people

9 - Targeting Invasive Species

“Here, as elsewhere in the world, invasive species are increasingly a serious threat to biodiversity and the benefits that healthy ecosystems provide to us... They are a risk to our unique flora and fauna, our economic interests such as forestry, fishing, and farming, our health, and our recreational interests.”

[An Invasive Alien Species Strategy for Northern Ireland \(2013\)](#)

A number of invasive, non-native plant species occur in most forests, with the potential to affect access, biodiversity, regeneration of forests, and tree growth. The most widely occurring invasive plant species are rhododendron (*Rhododendron ponticum*) and laurel (*Prunus laurocerasus*). Both are susceptible to *Phytophthora ramorum* (the cause of ‘Ramorum disease’, also known elsewhere as ‘sudden oak death’) and can act as hosts for the disease in a woodland and increase the amount of inoculum in an area. Although there are fewer invasive non-native mammal species in forests, the impact on biodiversity and tree health of the grey squirrel (*Sciurus carolinensis*) and introduced deer species can be locally significant.

Some invasive species are subject to regulation, under the [EU Invasive Alien Species Regulation \(Regulation No 1143/2014\)](#) and the [Wildlife and Natural Environment Act \(Northern Ireland\) 2011](#). Actions targeted against invasive species by public bodies are co-ordinated under the [Invasive Species Strategy for Northern Ireland](#). Effective action against invasive non-native species is generally very costly and is not undertaken without good justification, for instance removal from threatened protected habitats, ancient woodland sites, and riparian areas.

Opportunity: Prioritise areas where control of rhododendron and laurel is required.

Opportunity: Prioritise areas where control of colonising woodland is required in protected habitats and riparian areas in Forest Service forests.

Activity: Collate and analyse data on the occurrence of invasive plant species in forests.

Activity: Assess extent of colonisation of protected habitats and water buffer areas by Sitka spruce and other conifers.

Outcomes	Benefits
<ul style="list-style-type: none"> - Decreasing area of forest land affected by invasive plant species - Reduced threats to biodiversity and tree health 	<ul style="list-style-type: none"> - Forests are more attractive - Better access for angling



10 - Protecting Habitats and Species

“Northern Ireland’s biodiversity plays a significant role within its economy. A healthy, properly-functioning natural environment is the foundation of sustained economic growth, prosperous communities and personal well-being.”

[Valuing Nature A Biodiversity Strategy for Northern Ireland to 2020.](#)

A quarter of the 76,000 ha of land managed by the Forest Service is designated for nature conservation, as [Special Area of Conservation \(SAC\)](#), [Special Protection Area \(SPA\)](#), [Area of Special Scientific Interest \(ASSI\)](#), [Nature Reserve \(NR\)](#) or [National Nature Reserve \(NNR\)](#). A large proportion of this designated land in the East Fermanagh/East Tyrone FPA, which is monitored by Northern Ireland Environment Agency (NIEA), is comprised of the Slieve Beagh-Mullaghfad-Lisnaskea SPA for hen harrier (*Circus cyaneus*).

Designated areas in and adjacent to East Fermanagh/East Tyrone forests are listed in [Appendix II](#). As a competent authority, Forest Service is required to undertake assessments of the potential impact of forestry on areas designated in the East Fermanagh/East Tyrone FPA under the [EU Habitats and Bird Directives](#) as either SAC or SPA, which includes Slieve Beagh SAC and Slieve Beagh-Mullaghfad-Lisnaskea SPA.

In addition to designated areas, plans identify areas in forests that correspond to [priority habitats](#) described in the [EU Habitats Directive](#). These include native woodland (including semi-natural and [ancient semi-natural woodland](#)), parkland, species-rich grassland, bog and heathland. No critical threats to remnant [ancient woodland](#) features were identified following a survey of ancient woodland sites in Forest Service forests in the East Fermanagh/East Tyrone FPA, conducted in 2013 – 14. Ancient semi-natural woodland, which occurs in Altadaven block of Favour Royal Forest, is particularly important as it provides a range of habitats associated with deadwood and veteran trees, which support a richer diversity of plants and animals compared to semi-natural or new [native woodland](#). Forest design plans can also identify areas as [natural reserves](#), areas for native woodland expansion, [open habitat restoration](#), and, where areas should be maintained as open space, including internal forest edges.

Forests and woodlands provide habitats for a number of rare and protected plants, invertebrates, birds and mammals, and support populations of wild deer, which are managed to prevent damage to susceptible trees. Biodiversity of forests is also enhanced through management of [deadwood habitat](#), protecting ancient woodland remnant features, [veteran trees](#), and other features of high biodiversity value, increasingly favouring the use of extended [rotations](#), and of [low impact silvicultural systems](#) to maintain [continuous forest cover](#).

East Fermanagh contains important populations of red squirrels (*Sciurus vulgaris*). Favour Royal is a significant refuge for the red squirrel, which benefits from the activities of a local Red Squirrel Group. Red squirrel populations are also believed to be present in Spring Grove, Mullaghfad, Groguey, Knocks, Tully, and Crocknagrally Forests. The East Fermanagh/ East Tyrone FPA has relatively few recorded sightings of pine marten compared to other parts of Northern Ireland. Upland forests (most notably Clabby, Jenkin, Knocks, Mullaghfad, Crocknagrally and Fardross Forests) provide important habitats for hen harrier and merlin (*Falco columbarius*).

While the increasing use of low impact silvicultural systems in conifer stands is aimed at increasing biodiversity in general, some raptor species, such as hen harrier, gain more benefit from a mosaic of plantation ages resulting from managed clearfelling. Forest rides are particularly important for nesting and foraging of forest edge dwelling raptor species, including merlin.



While forest operations are planned to avoid adverse effects on rare and vulnerable species, it is also important that people wishing to use forests for recreational purposes are aware of the particular needs of protected species, particularly of breeding raptors.

Opportunity: Complete Habitats Regulations Assessments (HRAs) of revised forest plans in respect of SACs as appropriate.

Opportunity: Identify areas of open habitat where intervention is necessary to address potential loss of biodiversity, and maintain ecological connectivity.

Activity: Review potential effects of forest operations specified in forest plans.

Activity: Undertake assessments of the risk to open and parkland habitats from colonising trees and other threats to biodiversity.

Outcomes	Benefits
- Contribution of forests to Northern Ireland's biodiversity is maintained or increased	- Opportunities for watching birds and wildlife in forests

11 - Restoring Peatland Habitats

“Peatland covers 12% of the land area of Northern Ireland... It is a resource which is of enormous importance to the stability and general well-being of our environment, creating distinctive upland and lowland landscapes, conserving biodiversity, and affecting river catchment hydrology. Peatland is also valuable as an archival record of climatic and vegetational history and archaeological remains. Globally, peatland acts as a massive carbon store with implications for the ‘greenhouse effect’ ”.

Conserving Peatland In Northern Ireland: A Statement of Policy (1993)

Internationally, peatland habitats are threatened from human activities and climate change, and are therefore considered areas of high conservation importance. Historically, in Northern Ireland, significant areas of land with a peat depth of more than 50 cm was acquired because it was considered to be suitable for **afforestation**, using Sitka spruce (*Picea sitchensis*) and lodgepole pine (*Pinus contorta*), without compromising local agricultural production. However, as the areas acquired became more extensive and increasingly infertile, it was found that greater inputs, in terms of cultivation, drainage and fertiliser, were needed to establish plantations and to maintain tree growth. This took place over large areas of Ireland and Scotland, and to a lesser extent, in Wales and northern England. Similar activity has also taken place in other European countries, particularly in northern Sweden and Finland.

However, growing trees on land which requires repeated inputs of fertiliser is not compatible with **sustainable forestry**, and greater emphasis is placed on selecting species and silvicultural systems that can be more easily maintained. This limits options for productive forestry on the more infertile areas of peat, which due to its structure and high water content has a poor capacity to retain nutrients for growth.

Restoring areas of afforested peat that are unsuitable for growing trees back to open peatland habitat safeguards the storage of carbon in soil, and enables the recovery of biodiversity associated with bog habitats. However, it also requires inputs in terms of tree removal or treatment of felled areas, including blocking of drains, and would reduce the timber production potential of forests, and, possibly, limit recreation opportunities. Therefore, it is critical that potential restoration sites are identified and carefully considered. Forest Service has developed a revised approach for prioritising the restoration of peatland habitats, which is provided in **Appendix III**.

East Fermanagh/East Tyrone FPA forests include some areas with soil described as peat of more than 50 cm deep, including Altmore, Fardross, Tully, Mullaghfad, Jenkin and Doon. However, tree growth on peat soils in the East Fermanagh/East Tyrone FPA is variable, and it is likely that some areas within these forests are potentially suitable for restoration.

Opportunity: Identify and prioritise areas of afforested peat for restoration to open habitat in East Fermanagh/East Tyrone FPA forests.

Activity: Develop a process for identifying and mapping potential candidate restoration areas based on peat depth, slope and topography.

Outcomes	Benefits
<ul style="list-style-type: none"> - Reduction in area of regeneration of upland forests and their timber production potential - Change in upland forested landscapes - Reconnection of remnant patches of isolated peatland 	<ul style="list-style-type: none"> - Flood risk mitigation and carbon storage - Reduced carbon footprint

Appendix I

Composition of Forest Service forests

The areas and composition of Forest Service forests in East Fermanagh/East Tyrone Forestry Planning Area are shown by Forest Landscape Unit in Tables 1.1 and 1.2 below.

Table 1.1
Area and Composition of Forest Service Forests in East Fermanagh Forest Landscape Unit

Forests	Area (Ha)	Composition (%)			
		Broad-leaved	Conifer	Mixed	Open ground + water
Carnmore	267	13	69	2	16
Clabby	224	11	80	0	9
Crochnagrally	633	9	82	2	7
Doon	605	15	72	0	13
Fardross	880	7	66	0	27
Favour Royal	499	15	75	3	7
Grogey	304	13	77	1	9
Jenkin	1631	6	70	0	24
Knockmany	390	15	74	5	6
Knocks	1426	11	68	1	20
Mullaghfad	1774	5	37	1	57
Pubble	95	10	78	1	11
Spring Grove	186	20	60	14	6
Tully	1113	10	54	2	34
Total in Landscape Unit	10027	9	64	1	26

Table 1.2
Area and Composition of Forest Service Forests in East Tyrone Forest Landscape Unit

Forests	Area (Ha)	Composition (%)			
		Broad-leaved	Conifer	Mixed	Open ground + water
Altmore	579	3	87	0	10
Caledon	179	18	64	15	3
Cookstown	208	39	37	19	5
Drum Manor	94	26	8	57	9
Dunmoyle	390	10	80	0	10
Parkanaur	196	25	30	35	10
Pomeroy	177	20	42	30	8
Total in Landscape Unit	1823	15	64	13	8

Appendix II

Environmental Regulation, Designated Areas, and the Historic Environment

1. Environmental Regulation

Afforestation, deforestation, forest road works and forest quarry works are subject to regulation under the [Environmental Impact Assessment \(Forestry\) Regulations \(Northern Ireland\) 2006](#), as amended under the [Environmental Impact Assessment \(Forestry\) \(Amendment\) Regulations \(Northern Ireland\) 2017](#). Thresholds beyond which projects must be screened are determined by the type of project and existence of a designation, as listed in Schedule 2 of the 2006 Regulations.

In areas designated as [Special Area of Conservation \(SAC\)](#) or [Special Protection Area \(SPA\)](#), management plans and, where necessary, operational plans in connection with forestry or recreational activities, are subject to regulation under the [Conservation \(Natural Habitats etc.\) \(Northern Ireland\) Regulations](#) (as amended), commonly referred to as the Habitats Regulations. Operational plans for forest management activities in [Areas of Special Scientific Interest \(ASSI\)](#) are subject to regulation under the [Environment Order \(Northern Ireland\)](#).

[Nature Reserves \(NR\)](#) and [National Nature Reserves \(NNR\)](#) are declared under the [Nature Conservation and Amenity Lands Order \(Northern Ireland\) 1985](#), and are managed in accordance with a management plan.

2. Designated areas

Forestry land is designated under the [Habitats Regulations](#), the [Environment Order](#), and/or the [Nature Conservation and Amenity Lands Order \(Northern Ireland\) 1985](#). Forestry land may also include Sites of Local Nature Conservation Importance (SLNCI), which are local areas designated by Councils under the [Strategic Planning Policy Statement \(SPPS\) for Northern Ireland](#), and Planning Policy Statement (PPS) 2: [Natural Heritage](#). Designated areas adjacent to and on land managed by Forest Service are shown in Table 1.

Table 1

Designated areas adjacent to and on land managed by Forest Service.

Designated site or area	Designation type	Forest adjacent or included within
Slieve Beagh	SAC/ASSI	Fardross Mullaghfad
Slieve Beagh-Mullaghfad-Lisnaskea	SPA	Tully Doon Knocks Carnmore Jenkin Mullaghfad Fardross
Carnmore	ASSI	Carnmore
Cloghcor Lough Fardross Stream	ASSI ASSI	Fardross Fardross
Lough Corry	ASSI	Doon
Lough McCall	ASSI	Fardross
Lough na blaney bane	ASSI/SLNCI	Favour Royal
Roeveagh	ASSI	Favour Royal
Tanderagee	ASSI	Pomeroy
Annaghroe - Annacramp	SLNCI	Caledon
Brantry Lough	SLNCI	Caledon
Lissan Wood	SLNCI	Cookstown

Springhill Wood	SLNCI	Cookstown
Fallaghearn	SLNCI	Dunmoyle
Ashfield Mountain Bar	SLNCI	Fardross
Golan Little	SLNCI	Fardross
Fury River	SLNCI	Fardross
Slatmore Quarry	SLNCI	Fardross
Carrickavoy Lough	SLNCI	Favour Royal
Favour Royal	SLNCI	Favour Royal
Lough More	SLNCI	Favour Royal
Tircar Stream	SLNCI	Mullaghfad
Torrent River	SLNCI	Parkanaur
Parknamoney Wood	SLNCI	Pomeroy

Slieve Beagh SAC/ASSI is also designated as a wetland of international importance under the Ramsar convention.

Non-Forest Service designated woodland in the FPA includes Reahagy Wood ASSI and Glenmore Wood ASSI, and a number of SLNCIs that include woodland features, including Reahagy Wood, Parknamoney Wood, Tullylagan Manor Wood, Killymoon Estate Wood, Rusky Cottage Woods, and Tirnaskea Wood. Golan Little and Fury River SLNCIs each include woodland.

3. Forests and the Historic Environment

Forests and woodland often include historic sites, such as earthworks, ruined structures and buried archaeological features. These may be designated as state care or scheduled sites and monuments, or they may be non-scheduled. Features listed in the [Northern Ireland Sites and Monuments Record](#) (NISMR) that are located in forests or within 50m of forest boundaries are shown in Table 2. Some Forest Service forests include areas of [historic parks, gardens and demesnes](#), including Fardross, Favour Royal, Cookstown, Drum Manor, Parkanuar, and Pomeroy.

Table 2

State-care, scheduled and non-scheduled historic sites and monuments located within or close to forest boundaries (within 50m)

Forest	Townland	Type	Protection	Location
Carnmore	Carnmore	Cairn	Non-scheduled	In forest
Cookstown	Ballindrum	Rath	Scheduled	In forest
	Drumkern	Coney's Cell - Hermits Cell possible	Non-scheduled	In forest
Crocknagrally	Brobrohan	Standing Stone possible	Non-scheduled	In forest
	Crocknagrally	Giant's grave, Giant's stones, Megalithic Tomb	Non-scheduled	In forest
	Crocknagrally	Non-antiquity - Cloghronan	Non-scheduled	In forest
	Longfield	Megalithic Court tomb - Giant's grave	Non-scheduled	In forest
	Longfield	Standing Stone possible	Non-scheduled	In forest
	Longfield	Non-antiquity - Quarry	Non-scheduled	In forest
	Tireeghan	Cairn	Non-scheduled	In forest
Drum Manor	Oaklands	Standing Stone	Non-scheduled	In forest
	Oaklands	Enclosure	Non-scheduled	In forest

Dunmoyle	Dunmoyle	Enclosure and Tower - designed landscape feature	Non-scheduled	In forest
Fardross	Ballywholen	A.P. Site*	Non-scheduled	In forest
	Ballywholen	Megalithic tomb - Carnpatrick: Portal Tomb	Scheduled & State care	On Boundary
	Corleaghan	Non-antiquity - modern enclosure	Non-scheduled	In forest
Favour Royal	Altadaven	St Patrick's Chair - Rock-cut seat	Non-scheduled	In forest
	Cullamore	Cist Burial	Non-scheduled	In forest
	Derrymeen	Fort Hill - enclosure possible	Non-scheduled	In forest
	Favour Royal Demesne	Rath - Bivallate rath	Scheduled	In forest
	Favour Royal Demesne	Enclosure	Non-scheduled	In forest
Grogey	Carrickpolin	Rath	Non-scheduled	Near forest
	Carrickpolin	Non-antiquity	Non-scheduled	In forest
	Corlough	Burnt mound	Non-scheduled	Near forest
Jenkin	Altawark	Enclosure	Non-scheduled	Near forest
	Eshnadarragh	Sweat House (unlocated)	Non-scheduled	In forest
Knockmany	Ardunshin; Cloneblagh	Crannóg possible	Non-scheduled	In forest
	Knockmany	Annias Cove: Passage Tomb	State care	In forest
	Latbeg	Bullauin	Non-scheduled	Near forest
Knocks	Baltreagh	Rath: Copenny Fort	Non-scheduled	In forest
	Carrickawick	Standing Stone: Cloghavuska	Non-scheduled	In forest
	Carrowgarragh, Crocknagowan, Lough Hill	Crannóg possible	Non-scheduled	On Boundary
	Deer Park	Rath	Non-scheduled	In forest
	Derryheely	Standing Stone	Non-scheduled	In forest
	Eshbralley	Cup & Ring marked stone	Non-scheduled	In forest
	Eshbralley	Three Standing Stones	Non-scheduled	In forest
	Kilronan	Burnt Mounds (2)	Non-scheduled	Near forest
	Kilronan	Burnt Mounds (5) & Cairn	Non-scheduled	Near forest
Knocks	Stranafeley	Holy Well: Eye Well	Non-scheduled	Near forest
Mullaghfad	Alderwood	Megalithic Tomb (unlocated)	Non-scheduled	In forest
	Alderwood	Holy Well: Una's Well	Non-scheduled	In forest
	Glennoo	Grave: The Old Woman's Grave	Non-scheduled	In forest
	Glennoo	Standing Stone	Non-scheduled	Near forest
	Mullynavale	Mound: Doocarn (uncertain)	Non-scheduled	In forest
	Mullynavale	Enclosure	Non-scheduled	In forest
Parkanaur	Edenacrannon	Crannóg possible	Non-scheduled	In forest
	Stakernagh	Crannóg	Scheduled	In forest

Pomeroy	Derryhash	A.P. Site* - circular enclosure	Non-scheduled	In forest
	Moymore	Rath	Scheduled	In forest
	Pomeroy	Enclosure: White Hill	Non-scheduled	In forest
	Pomeroy	Enclosure	Non-scheduled	In forest
Pubble	Pubble	Rath possible	Non-scheduled	In forest
	Pubble	Stone Head & Bullauin	Non-scheduled	Near forest
Spring Grove	Annahervy	Mound, crannog possible	Non-scheduled	In forest
	Rathkeevan	Rath: Rathkeevan	Non-scheduled	In forest
	Rathkeevan	Tree Ring	Non-scheduled	In forest
	Spring Grove	Crannóg	Non-scheduled	In forest
	Spring Grove	Rath	Non-scheduled	In forest
Tully	Coolnasillagh	Enclosure	Non-scheduled	In forest
	Coolnasillagh	Tree Ring	Non-scheduled	In forest
	Mullnalughoge	Burnt Mound	Non-scheduled	Near forest
	Tattycam	Fortification	Non-scheduled	In forest

*Unverified site identified by aerial photography

Appendix III

Strategy for Restoring Peatland Habitats

1. Rationale

1.1 Northern Ireland Forestry Strategy

The Northern Ireland Forestry Strategy, '[Northern Ireland Forestry – A Strategy for Sustainability and Growth](#)' (2006) restates policy as:

- The sustainable management of existing woods and forests, and
- A steady expansion of tree cover to increase the many diverse benefits that forests provide.

The strategy indicated that an amended Forestry Act would place a duty on the Department to promote afforestation and sustainable forestry, which duly came into effect in 2010.

The Northern Ireland and UK Governments' approach to sustainable forestry is set out in the UK Forestry Standard (UKFS), which is currently in its 4th edition (2017). The UKFS reiterates the legal requirement that "Appropriate protection and conservation must be afforded where sites, habitats and species are subject to the legal provisions of EU Directives and UK and country legislation". In addition in Northern Ireland, the WANE Act (2011) places a General Duty on every public body to 'further the conservation of biodiversity so far as is consistent with the proper exercise of those functions [it exercises].'

The [UKFS](#) includes a number of general forestry practice requirements and guidelines that are applicable to afforested peat.

The standard requires forest plans to take full account of a range of requirements and guidelines relating to forest design, biodiversity, water, soil, and climate change, and provides scope for undertaking peatland restoration projects to improve the delivery of ecosystem services. The requirements that are most relevant to the topic of restoring peatland habitats are Forests and Biodiversity general forestry practice requirements 1 and 4:

- Forests and woodlands should be managed in such a way that conserves or enhances biodiversity; opportunities for enhancing biodiversity should be considered in forest management plans.
- Particular consideration should be given to conserving, enhancing or restoring priority habitats and species identified in the statutory lists of priority species and habitats for England, Scotland, Wales and Northern Ireland, through the delivery of country biodiversity strategies and local level plans.

Forests and Biodiversity Guidelines 24 and 26 refer specifically to restoration of habitats and degraded features:

- Consider practical opportunities to restore open habitats where their value could be reinstated and sustained.
- Ensure wetland features such as springs, flushes and bogs are protected, and take opportunities to restore degraded features.

The UKFS is also the basis of forestry practice for the independent [UK Woodland Assurance Standard \(UKWAS\)](#), which is used for voluntary independent certification. The relevant UKWAS sections include: 2. Management Planning, and 4. Natural, historical and cultural environment:

- 2.1 Long-term policy and objectives
- 2.2 Documentation

- 2.11 Conservation
- 2.13 Conversion
- 2.14 Implementation, amendment and revision of the plan
- 2.15 Monitoring
- 4.1 Statutory designated sites and protected species

1.2 Northern Ireland Biodiversity Strategy

The Northern Ireland Biodiversity Strategy, '[Valuing Nature - A Biodiversity Strategy for Northern Ireland to 2020](#)' (2015), refers to the importance of peaty soils and associated priority habitats, including blanket bog and lowland raised bogs, in providing ecosystem services, such as clean water supplies, carbon storage, and recreation, and identifies forestry and other land management practices as potential threats to these services.

The strategy indicates that many ecosystems, such as peatlands, are in a relatively poor condition, and states the need to reverse the decline and work towards Favourable Conservation Status. It emphasises the importance of peatland soils and vegetation as a carbon store and suggests their value in sequestering carbon may become a particularly economically advantageous characteristic as carbon accounting becomes more important.

1.3 Review of forest design plans

The review stage of forestry planning involves re-examining management objectives, and the forest data on which they are based. Long-term objectives are presented in the form of design plans, which show planned boundaries between forest and open ground, and planned felling and regeneration. Forest design plans meet the requirements of the UK Forestry Standard in relation to the proportions of tree species, the proportion managed as open ground, and overall area managed primarily for biodiversity. Adjustments to these proportions are made in the course of felling and regeneration, which can include the introduction of more open ground, and through specific programmes, including, for example, tree planting, and, removal of trees colonising open ground.

1.4 Stakeholder engagement

'Restoring Peatland Habitats' is one of 11 topics identified as a basis for engaging with stakeholders at the initial, scoping, stage of forestry planning. Stakeholders responding to the Sperrin scoping consultation in 2018 indicated they were in favour of the restoration of afforested peatlands; responses from forest industry stakeholders suggested that peatland forestry was, in some cases, an unsustainable land use, while others indicated that restoration could generate environmental benefits, including carbon sequestration and flood risk mitigation.

Stakeholders are given the opportunity to comment on proposals to review forest design plans via the forestry pages on the DAERA website. As planning proceeds proposals will be developed for all remaining forests by 2020.

1.5 Restoration potential

The rationale for restoration of blanket bog reflects the potential to achieve appropriate hydrological conditions, based on external peat depth and slope datasets. Proposals to convert woodland to priority bog habitat will exclude sites that have become degraded due to peat cutting or erosion, intensively drained areas dominated by heather, areas colonised by native tree species, and areas that have developed into native wet woodland.

1.6 Sustainable wood production

The strategy should not affect the potential of forests to deliver sustainable wood production. Candidate restoration areas will mainly consist of areas that were, until recently, identified as open priority habitats. A number of assessments in recent years have indicated that peatland

forests also include a proportion of uneconomic stands comprised of checked (where growth has ceased or stagnated), nutrient deficient or dying trees.

2. Prioritisation of candidate bog restoration areas

2.1 Site selection criteria

- Planned open ground (either current or in forest design plan).
- Adjacent and integral to designated areas*, or non-designated priority habitat.
- Peat depth $\geq 0.5\text{m}$ and slope $\leq 3^\circ$ over most of the area.
- Colonised with > 400 conifer seedlings/ha, or uneconomic (failed, checked, nutrient deficient or dying).

*SAC/ASSI, ASSI, NNR, LNR, and SLNCI

2.2 Prioritisation of restoration

Priority 1: Meeting all criteria; uneconomic stands or colonised areas shown as open ground priority habitat in design plans, adjacent and integral to designated or non-designated priority habitat, and where peat depth $\geq 0.5\text{m}$ and slope $\leq 3^\circ$ over most of the area.

Priority 2: Planned open ground, predominantly meeting remaining criteria; may include up to 30% productive stands (\geq Sitka spruce General Yield Class 8 or Lodgepole pine General Yield Class 6).

Priority 3: As for Priority 2, but does not fully meet peat depth and slope criterion.

3. Strategy

- The strategy for open habitat restoration in forests reflects Northern Ireland strategies for forestry and biodiversity.
- The strategy replaces the expired Strategy for the Restoration of Open Ground Semi-Natural Habitats, and Register of Open Habitat Restoration Sites.
- Prepare operational plans for bog restoration for Priority 1 areas, subject to the acceptance of proposals by planning meetings.
- By 2020, to ensure monitoring of restoration areas is embedded within the planning process.
- By 2030, to review strategy and undertake a strategic review of candidate bog restoration projects.

4. Review

The rationale and strategy will be subject to review as necessary in respect of:

- The potential to make adjustments to felling plans in response to significant changes to timber marketing conditions affecting poor quality and diseased lodgepole pine, and checked and nutrient deficient Sitka spruce stands.
- The requirement to undertake restoration of heathland habitats; this will be assessed as planning reviews take place.
- The development of a wider Forest Service strategy for the management of open priority habitats.
- New research and technical information.

Map 1: Forests and woodland within East Fermanagh/East Tyrone Forestry Planning Area (FPA)



-  East Fermanagh/East Tyrone Forestry Planning Area
-  Forest Service forests
-  Non Forest Service forests
-  Towns

