

The Isle of Man

North District Management Unit Plan

2025 – 2045

Review 2035



Title – Upland Injebreck Reflections (Credit Mark Falconer)



Department of Environment, Food and Agriculture

Rheynn Chymmyltaght, Bee as Eirinys



OUR **LANDSCAPE**
OUR **LEGACY**

Signed: **Head of Forestry, Amenity & Lands** **Date**

Signed: **Director of Forestry, Amenity & Lands** **Date**

Signed: **Chief Officer** **Date**

For IOM Use only:				
Plan Period	Approval Date:		Approval End Date:	
September 2025 – August 2045				
5 Year Review Period	10 years from date of approval			

North District – Long Term Plantation Plan	4
i) Background, Overview & Purpose	4
1. Summary	7
2. What are Forest Plans.....	7
2.2. Planning and District Context	8
2.3. Engagement	8
2.4. Application for plan approval dated:.....	8
i) Plan Area.....	8
ii) Designations	9
iii) Date of commencement of plan	10
3. The plan.....	10
3.1. Introduction	10
3.2. Management objectives/ Forest Plan Outcomes	11
i) The Isle of Man strategic objectives	11
ii) Economic.....	11
iii) Nature and Environment	12
iv) Community/People/Social	15
3.3. Restructuring & Landscape.....	16
i) Current plantation composition.....	16
ii) Yield Class	18
iii) Wind Hazard Classification	18
3.4. Concept & Analysis	18
3.5. Future Composition and structure	20
i) Harvesting.....	20
ii) Intended Land use	21
iii) Expected Species Composition	22
4. Terms of reference.....	26
i) Management Objectives and Monitoring plan	26
ii) Long Term Retention Areas	30
5. Operational Plans.....	30
i) Summary of North District Plan of Operations	30
6. Glossary of terms	32
7. Maps.....	35

North District – Long Term Plantation Plan

i) Background, Overview & Purpose

The Isle of Man Government is responsible for 2,877 hectares (ha) (7,109 acres) of plantation first established 1885. The northern plantations represent 1,529ha (3,777 acres) and are located from St Johns and Greeba to Ramsey in the north (see location plan below).

All plantations are managed by the Department of Environment, Food and Agriculture (DEFA), through its Forestry, Amenity and Lands Directorate (FALD).

The plantations offer recreational opportunities, serve as vital habitats for various species, and constitute a significant source of timber, thereby providing an important economic resource for the Island.

Recently plantations have suffered from *Phytophthora ramorum* killing much of the larch, and windblow has further affected recreational access.

Much of the plantation estate has surpassed its expected growth period leading to extensive windblow, high susceptibility to future windblow, low resilience, and areas of diseased larch. As a result, significant restructuring is needed, involving the harvesting of more timber than the Island can utilise. Timber will be harvested for both local use and exported to the UK to generate income for plantation management. All exports must comply with global sustainability and international standards.

These markets require evidence that the timber sourced is compliant with the [EU 2023/1115 Regulation on Deforestation Free Products](#)¹ (EUDR, 2023)

To facilitate this process, we have produced this management plan towards our aim to obtain forest certification through the Forest Stewardship Council (FSC®) and to and to meet DEFA's vision and objectives.²

- to create attractive and sustainable 'places' and an economy achieving long term growth, whilst improving the quality of life in the Isle of Man
- to sensitively manage and encourage recreational and commercial activity across the estate for the benefit of our community, our economy and our visitors
- to embed climate change action to transition to our net zero future
- to work to ensure that our food is safe, our community is free from agents that will affect our health and to reduce pollutant discharge into our water, land or air
- to build on the high quality of life enjoyed by our community, ensuring the efficient and responsible use of land, environmental and other physical resources, and infrastructure

¹ The goal of the EUDR is to guarantee that the products European Union (EU) citizens consume do not contribute to deforestation or forest degradation worldwide.

² <https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/defas-objectives/>

- our vision for the Island’s energy future is one in which our net zero ambition supports the economic strategy, taking advantage of the latest low carbon technologies, and optimising our own abundant natural resources, making us more independent and prosperous
- to provide educational and nature-based amenities for our community and visitors
- to monitor and protect tree health and seek to maintain the woodland environment and character of the countryside
- to work to ensure that the valuable biodiversity resources are properly managed and effectively conserved for future generations
- to operate an efficient sawmill that plays both an integral part to our forestry management plan, and offers a quality Manx product for our community

FSC® forest management certification confirms that forested areas are managed to strict environmental, social and economic standards. There are ten principles³ that any forest operation must adhere to before it can receive FSC® forest management certification. These principles cover a broad range of issues, such as monitoring the environmental and social impacts⁴ of the forest management.

The Isle of Man Government commits to the FSC® principles and criteria and to related policies and practices of forest management through adoption of the principles of the United Kingdom Forest Standard (UKFS)⁵ (GOV, 2023) and the United Kingdom Woodland Assurance Standard (UKWAS)⁶ set within existing Isle of Man National regulations and policies.

It is the aspiration of the DEFA to achieve full FSC® status within the next five years.

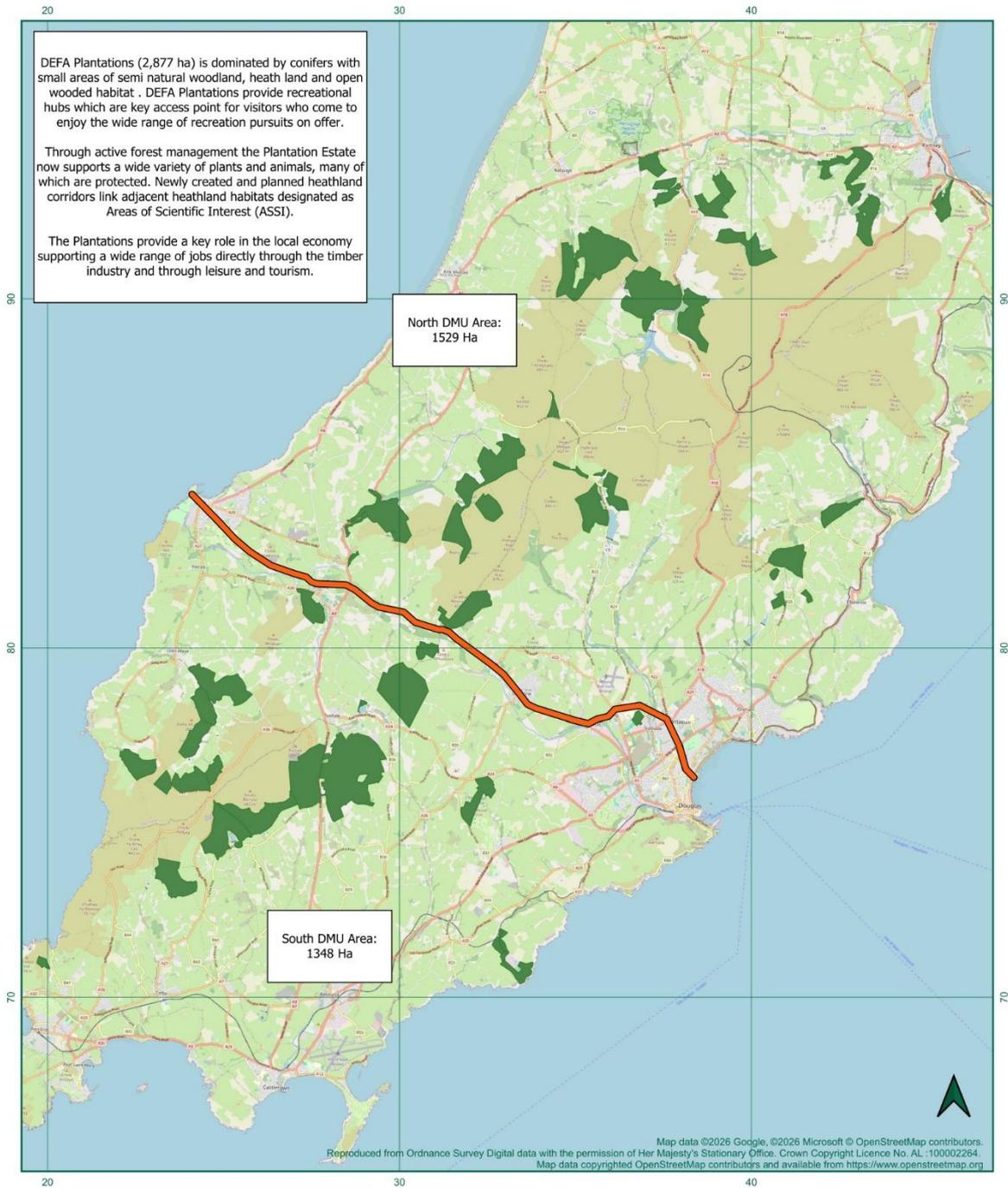
Certain technical terms and phrases are used in the text as they accurately describe the activities discussed. Definitions for these terms are provided in the glossary at the end of this document.

³ <https://uk.fsc.org/what-is-fsc/fsc-certified-forests>

⁴ <https://uk.fsc.org/impact>

⁵ The UK Forestry Standard (UKFS) sets out the UK government's requirements for sustainable forest management, covering biodiversity, climate change, soil, water, landscape, and the historic environment. It applies to all woodland regardless of ownership and serves as the basis for regulation, monitoring, and international reporting
<https://www.gov.uk/government/publications/the-uk-forestry-standard>

⁶ The UK Woodland Assurance Standard (UKWAS) is an independent certification standard that verifies sustainable woodland management in the UK. It aligns with international benchmarks set by the Forest Stewardship Council® (FSC®) and the Programme for the Endorsement of Forest Certification (PEFC), and is adopted within Isle of Man forestry policy to support responsible forest stewardship <https://ukwas.org.uk/>



Location Map

- Plantation Locations
- District Boundary Line

1:100000
Scale Correct at A3
Grid Ref: SC330814
Date: 18/02/2026
Drawn by: John Lees

District Forest Office - Thie Sleau
Whallian, Foxdale Road, St. Johns Isle
of Man, IM4 3AS
Forestry@gov.im



Department of
Environment, Food
and Agriculture
*Rheynn Chrymmyltaght,
Bee as Erroys*



Working Together
for a Sustainable
Future
*Gobberagh Cooslagh Son
Triaa Ry-Hest
Shannagh*

1. Summary

The vision for the nations plantations outlines the delivery of forest policy at a national level. This is supported by the 'National Plantations Management Plan' document which directly oversees the implementation of policy actions in the nations plantations and thereby the proposals identified and implemented by the two District Management Units (DMU).

Our task is to realise the potential of all the plantations in our care for sustainable business opportunities, wildlife and nature conservation, and the enjoyment and well-being of local people and visitors. Each of our plantations support the economy through local jobs, sustainable timber production and the provision of recreation and tourism opportunities. All are partly funded by revenue from timber sales and recreation provision.

This task is implemented through individual ten-year Plantations District Plans that identify local issues and the broad silvicultural management of the woods. DMU Plans are reviewed every five years.

2. What are Forest Plans

Forest Plans are produced by FALD, as a means of communicating the management intentions through maps to a range of stakeholders. They aim to fulfil several objectives:

- To provide descriptions of the plantations to show what they are like now.
- To show what the intention is for the plantations to look like in the future.
- To detail the management proposals (felling and restocking) for the next ten years so approval can be requested from DEFA.
- To evidence that the proposals and associated operations are economically, environmentally and socially sustainable. The aim is to ensure that the produce from the plantations will be endorsed by the Forest Stewardship Council® (FSC®) as being produced from woodlands under good management that meet the requirements of the Controlled Forest Management Standard⁷ with an ambition to adopt and follow the principles of the UKWAS and the UKFS and set within the Isle of Man (IOM) national regulations / Forest Strategy / Policy.

In accordance with the Island's Tree Preservation Act 1993 (TPA), all qualifying trees on the Isle of Man are regulated by DEFA, and permissions must be obtained before any felling or pruning activities take place. Under the TPA, DEFA is not required to seek approval for its own tree-related work. Given the scope of tree felling addressed in this plan, the Plantation Plan is used as the mechanism for seeking necessary approvals. Responsibility for ensuring that the plan complies with all relevant standards and statutes rests with the FALD. If all criteria are met, full approval is granted for management operations during the first ten years from the date the plan is approved, and outline approval is provided for the medium-term vision, covering ten to twenty years.

Section 6, terms of reference, set out our management objectives for the plan area, how these relate to district and national policies, and how these will be monitored. A forest plan or felling and restocking

⁷ <https://connect.fsc.org/document-centre/documents/retrieve/ad74dcfa-a1c4-42be-a798-0759fa61fc64>

plan is written at a landscape scale. It does not set out the detailed yearly management operations for each small piece of a wood, known as a coupe.

For operational and logistical reasons, it is not possible to say in which year a particular operation will take place, but it is possible to state which five-year period it should happen in. Before felling and restocking operations are undertaken, operational plans are written by the Forester. These detail the site-specific features that need considering when undertaking operations. This forest plan does not deal with the management of recreation, ecological or archaeological features. Planning for these elements is done through the wider DEFA family.

2.2. Planning and District Context

The National Plantation Management Plan for the nation’s plantations outlines the delivery of forest management policy at a national level. At a regional level there are two District Management Units (DMU) that directly oversee the implementation of policy actions in the Island’s plantations. North DMU is an extensive area encompassing the area north of the A1 between Douglas & Peel.

Our task is to realise the potential of each of the plantations in our care for sustainable business opportunities, wildlife and nature conservation, and the enjoyment and well-being of local people and visitors. Each of our plantations supports the economy through local jobs, sustainable timber production and the provision of recreation and tourism opportunities. All are funded by revenue from timber sales, recreation provision and Department annual budget.

2.3. Engagement

A scoping exercise is conducted by combination of letter, e-mail and online consultation hub, seeking stakeholder and interested party comment on the proposals. Hard copies of the plans will be available for viewing at DEFA Offices, This Slieau Whallian, St Johns.

Features raised and responses concerning this proposal are recorded into a consultation record held at DEFA and available on request subject to a data protection impact assessment (DPIA).

2.4. Application for plan approval dated:

i) Plan Area

Forest Management unit: NORTH
Office: Thie Slieau Whallian, St Johns
Area: 1,529 ha

Management zone	Colden	Laxey	Ramsey	Sulby	Tholt e Will
Main RV Point	SC295842 Eairy Beg	SC406827 Conrhenny	SC431943 Skyhill	SC368940 Gob y Volley	SC351918 Ballaugh
Area	550	117	170	200	491

Table 1 – North DMU Zone Information

The North DMU has been divided into five zones that identify local issues and the broad silvicultural management of the woods and so that felling maps can be clearly shown at a scale of 1:25,000 or

below. The names used by FALD to refer to each plantation area are shown on the North Zonal Map appended.

ii) Designations

Feature	Area (Ha)	% of plantation	Area (Ha) of plantation in 2035	% of plantation in 2035
HCV ⁸ / Restorable*	69.05	4.52%	69.05	4.52%
LISS (including other areas of native broadleaf)	154.71	10.12%	154.71	10.12%
LTR ⁹	62.91	4.12%	62.91	4.12%
Natural Reserve ¹⁰	83.13	5.44%	114.22	7.47%
Natural Reserve SNW ¹¹	7.5	0.49%	7.5	0.49%
Open Ground (managed for conservation, including heath)	187.57	12.27%	222.47	14.55%
Semi-Natural Woodland	9.86	0.64%	9.86	0.64%
Non-Designated	954.06	62.41%	888.07	58.09%
Total North	1528.79	53.13%	152.79	53.13%

Table 2 - Summary of key features & designations by area

*HCV restorable includes operations to restore plantation to priority bog habitat.

See North Designations Map appended.

⁸ High Conservation Value refers to biological, ecological, social, or cultural features within natural habitats that are of outstanding significance or critical importance

⁹ Long-term Retention - refers to trees or groups of trees retained on site beyond the normal felling age, usually for biodiversity, landscape, or heritage value, and intended to remain standing for the long term.

¹⁰ A Natural Reserve is an area of woodland set aside primarily for the conservation of natural processes and biodiversity, where active management is absent or minimal, and intervention is generally limited to safety or statutory requirements.

¹¹ Semi Natural Woodland - Woodland composed predominantly of locally native tree and shrub species that have established through natural regeneration or traditional management (such as coppicing), rather than through modern planting.

iii) Date of commencement of plan

This is set to be soon as possible after the approval date.

Area (ha)	Conifer	Broadleaves	Total area
Felling	245.7	32.62	278.32
Restocking*	-80.86	47.97	-32.89**
Thinning	76.5	n/a	76.5
LISS¹²			154.71

Table 3 – 10-year felling and restocking by area

*Subject to ongoing monitoring of restock sites, natural regeneration will be managed through respacing and removal as required to meet the objectives of a specific site.

**The negative restocking figure is due to increase in integrated open ground and restoration/improvement of habitat connectivity in the uplands.

3. The plan

3.1. Introduction

This plan sets out the management proposal for the next 20 years and facilitates approval for felling and thinning; for the next 10 years, including a mid-term review at the 5-year point and will cover the five management zones within the Northern District.

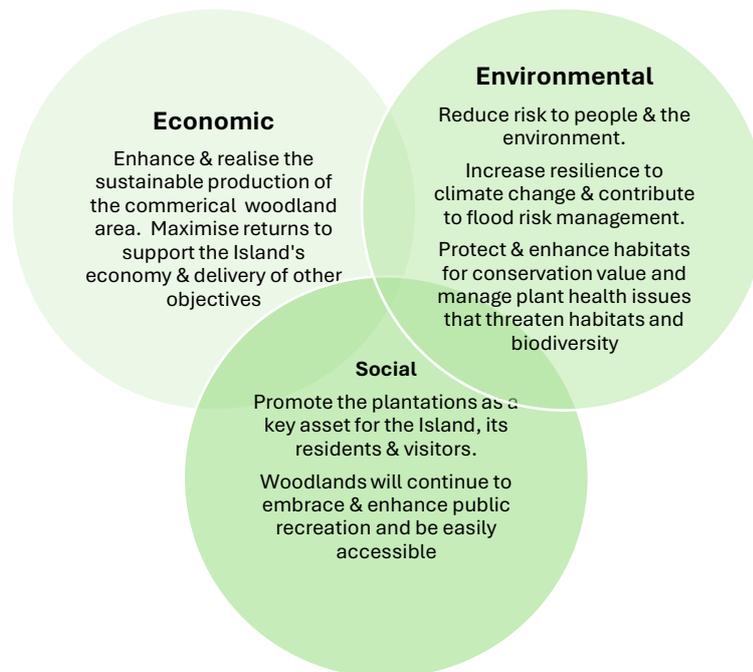
For over a century, the Isle of Man Government has managed and cultivated more than 2,800 hectares of national forests, ensuring these resources serve current and future generations. Through strategic planning and expert stewardship, the North DMU is positioned to remain productive, delivering a sustainable timber supply and offering accessible spaces for recreation and reflection, all while supporting local ecosystems and wildlife. FALD's mandate encompasses the responsible planning and replanting of plantations to achieve long-term sustainability by balancing economic, social, and environmental priorities.

This management plan outlines proposals for the next 20 years, facilitates approval for felling and thinning activities over the next 10 years. It also incorporates a mid-term review at the five-year mark and addresses the five management zones within the Northern District.

¹² In addition to the above felling 245.7ha will be managed using Lower Impact Silvicultural Systems (LISS). This will be done through the removal of small groups of trees, removing no more than 40% of the stems within any single compartment over the plan period. This operation will provide sufficient light to boost growth of understorey and ground flora, allow adequate space for the development of crowns and stem form for quality timber and accelerate individual tree growth

3.2. Management objectives/ Forest Plan Outcomes

i) The Isle of Man strategic objectives



ii) Economic

Enhance and realise the sustainable productive potential of the existing commercial woodland areas where appropriate over the long term, whilst maximising economic returns to support the Island's economy and contribute to the delivery of other objectives.

Opportunities exist to support DEFA objectives, such as the operation of an efficient sawmill¹³ that offers a quality Manx product of low carbon footprint for our community from timber that is harvested sustainably. Sustainable timber refers to timber that has been harvested responsibly. This reflects that when one tree is harvested, another is planted to replace it.

Phytophthora ramorum has had devastating impacts on the health of Larch, reducing growth rates, gradually weakening the trees and in most cases, killing them. To counter the effect, gradual felling at Ballaugh and Eairy Beg has created suitable growing conditions for naturally regenerating native species less suited to large, exposed clear-fell sites and in some instance underplanting will allow the site to be managed productively again while phased removal of the Larch takes place. However, the worst affected stands will be clear-felled and restocked.

In the next 10 years the early removal of larch stands will lead to a drop off in larger log sizes and may affect economic returns from the forest. To help mitigate the impacts of climate change, pests and diseases on the future health of the forest, FALD will be introducing a much wider variety of tree species

¹³ <https://www.gov.im/categories/business-and-industries/isle-of-man-sawmill/>

including Douglas fir and Norway spruce. New timber markets have also been established to build economic resilience.

Dothistroma Needle Blight (DNB) has had a measurable impact on the growth on the Corsican & Lodgepole pine within Conrhenny, Skyhill and Tholt y Will plantations over the last decade. DNB causes the trees to shed needles each year, reducing growth rates, gradually weakening the trees and in some cases, killing them. To counter the effect of the DNB, the Corsican pine stands will be thinned and rows of trees removed. This will increase aeration in the crowns of the trees, reducing the damp conditions where the fungus spreads rapidly. Felling rows of trees will create suitable growing conditions for shade tolerant species less suited to large, exposed, clearfell sites. This underplanting will allow the site to be managed productively again while phased removal of the Corsican pine takes place. Some younger Corsican pine stands (<25 years old) which are worst affected will be clearfelled and restocked. In the next 20 to 30 years the early removal of Corsican pine stands will lead to a drop off in larger log sizes and may affect economic returns from the forest.

Rabbit and hare populations are currently at a level that any browsing damage is not preventing regeneration or planting stock becoming established. Populations will be monitored and active management carried out where necessary to ensure population density does not increase and prevent the forest regenerating.

The district will maintain regular pheromone trapping to monitor for invasive invertebrates and implement the IPMS for the monitoring of and maintenance of the plantations as identified within the National Plantation Management Plan section 4.4.

Income generation from leisure and tourism is becoming increasingly important and FALD will continue to support local businesses based in and around the district through the provision and promotion of new and existing recreation facilities in the forest. Additional facilities and access will be provided at key sites such as at Conrhenny Community Woodland¹⁴.

iii) Nature and Environment

Part of the plan is to reduce the risk to people and the environment through sustainable woodland management, whilst increasing resilience against the future effects of climate change. This is in part achieved by positively contributing to local flood risk management. Protecting and enhancing habitats to maximise their conservation potential will be a priority, whilst also committing to dealing with plant health issues and invasive plants and animals that threaten habitats and biodiversity.

The plantations support a wide variety of flora and fauna with high conservation value, including several nationally and internationally protected species. FALD works with DEFA Ecosystem Policy Team and has a good working relationship with Manx Wildlife Trust (MWT), in monitoring, conserving and enhancing local populations and associated habitats.

For example, Wild Cranberry (*Vaccinium oxycoccos*) is a BAP species found within some of the peat bogs and notably which have been protected from grazing by forest fencing at Slieau Managh. Opportunity will be taken to remove the trees and revert plantation planted on the deep peat back to bog and conditions to support associated fauna as part of the Manx Peat Partnership¹⁵ and associated

¹⁴ <https://www.visitisleofman.com/experience/conrhenny-community-woodland-p1306881>

¹⁵ <https://www.manxpeat.org/>

BAP to protect and restore peatland. FALD continues to actively manage land at Colden and Injebreck plantation adjacent to an ASSI to keep it in favourable condition and control encroaching vegetation.

Heathland habitat covers around 12% of the Island and is a valuable habitat with international significance. Areas of plantation such as parts of Glion Gill, previously established on heathland, are now struggling with checked growth¹⁶ or failed growth will be cleared of trees to allow natural heathland vegetation to re-establish.

Recruitment of veteran trees are recognised for their important contribution to a range of species and have been noted on retained hedge banks such as at Tholt y Will and Injebreck. Opportunities for further recruitment will be explored in areas of natural reserves.

Within the North District we have the only RAMSAR designation on the Island at Ballaugh Curragh and our management of our nearby riparian areas will need careful consideration in the plantations adjoining watercourses and watersheds. With reference to the management strategies and actions, the goal will be to maintain or enhance areas and features of high conservation value section (See section 4 of the National Plantation Management Plan). Such work will also support other woodland dependent species such as black cap.

It is recognised that there has been little National Vegetation Classification (NVC) surveying on the Isle of Man, therefore, this plan will reference the MWT's Manx Wildlife Sites Handbook¹⁷, using the criteria, indicators and descriptors within.

Within this plan 'WS 2' type semi-natural woodland is located within designated 'Registered Tree Areas' (RAs), such as Ballure RA1967 and Ballacuberagh RA1806, which are situated within our plantations. Several plantations also border RA sites and contain features that extend into the plantation, classified as 'WS 3'. These 'WS 3' areas have developed semi-natural characteristics, including native species, and are similar in nature to the adjacent RA woodlands. They are primarily found along riparian zones throughout much of the plantation area. These woodlands will be managed either as Natural Reserves or under Low Impact Silvicultural Systems (LISS), with efforts made during the felling of commercial crops to protect existing features and expand the semi-natural woodland by planting native broadleaved species alongside. This work also helps safeguard rivers from proposed forestry activities and improves key riparian zones and watershed regions.

Within the Isle of Man two sites are listed by Birdlife International as important bird areas (IBA) (a non-statutory/informal recognition of the importance of the area for birds): the Isle of Man Sea Cliffs, for species such as red-billed chough (*Pyrrhocorax pyrrhocorax*) and European shag (*Gulosus aristotelis*) and Isle of Man Hills, for Hen Harriers. Many of the northern plantations fall within the Isle of Man Hills IBA.

The only plantation on the Island with a 'wildlife site' is found at Greeba and links to the ASSI Greeba Mountain and Central hills, noted for its important assemblage of upland breeding birds and upland habitats including heather moorland, acid grassland, mire and a river catchment area. Work within the

¹⁶ "Heather Check" as a term refers to the poor growth of trees in areas of dense heather, which manages to out-compete young trees for nutrients in the limited-fertility soil that heather often grows in.

¹⁷ <https://www.mwt.im/sites/default/files/2023-05/Manx%20Wildlife%20Sites%20Handbook%20March%202008.pdf>

plantation will be undertaken in consultation with MWT and areas of 'WS 3' will be managed as NR or LISS to link with the RA1094.

FALD are working closely with the MWT to support efforts to deliver the Ramsey Forest Project¹⁸, expanding and linking the glens, plantations and woodlands between Ramsey and Sulby through leasing land to the MWT to increase woodland cover from 20% to 30% over the next 30 years.

Key watersheds and watercourses that are linked to or fall within our plantations such as the designated watercourses; River Neb which links with Eairy Beg and Glion Gill, Rivers Dhoo and Glass via Colden &



Image 1 - The photo shows examples of existing deadwood recruited within the plantation

Injebreck and Slieau Maggle, Laxey River and Glen Roy below Axnfell adjoining Laxey Glen, Sulby River leading from Tholt y Will, Brookdale and Skyhill. The reservoirs near Tholt y Will, Conrhenny, Colden, Injebreck and Injaighyn have large watersheds which need consideration during operational planning. Within the water catchment boundary, felling will be (subject to stability & disease) limited to <20% of the plantation area within the water catchment in any three-year period.

FALD will undertake mitigation measures when forestry operations take place, and conifers will gradually be removed from water bodies in accordance with the Code of practice for protection of Water (CPPW)¹⁹ and the UKFS Forestry and Water Guidelines²⁰. Broadleaved buffers will be established around water courses, improving habitat quality and interception of rainfall. In addition, LISS will be used in conifer stands and the 'semi natural woodland' within the riparian areas of Ballaugh and Axnfell, increasing the area of native broadleaf above the tributaries

feeding the Sulby and Laxey rivers and areas adjacent to the important ASSI and RAMSAR at Ballaugh Curragh and the important Laxey national Glen. This will help in reducing potential for movement of soil nutrients or runoff following felling operations.

Deadwood habitats are very important for woodland ecology, and the management team will ensure deadwood habitats are retained as operations are carried out, where safe to do so, in both broadleaved and conifer woodlands. Other opportunities will be taken to recognise and increase deadwood habitat,

¹⁸ <https://www.mwt.im/what-we-do/ramsey-forest-project>

¹⁹ https://www.gov.im/media/279019/code_of_good_agricultural_practice.pdf

²⁰ https://cdn.forestresearch.gov.uk/2006/03/ukfs_water_fcg1007.pdf

retaining existing deadwood (where safe to do so) within areas of integrated open ground, natural reserves, riparian areas and forest margins.

Over the next ten-year period, one of FALD's management objectives is to increase the area of scrub habitat along woodland edges and heathland corridors for the benefit of birds to create temporary open space created through felling operations. The plan is to have >1.5ha of open / scrub for ground nesting birds where they are known to occur, with notable edge-favouring species consisting of Hen Harrier and Stonechat.

iv) Community/People/Social

The plantations will be promoted as a key asset for the Island its residents and visitors. Plantations will continue to embrace and enhance public recreation and be easily accessible.

The Isle of Man receives over 270,000²¹ visitors a year, of which 80% come to enjoy the countryside and outdoor recreation. FALD's focus is for plantations to absorb the large numbers of visitors in the landscape while still retaining the sense of a 'wild place'. FALD will continue working with partners to support existing areas and new sustainable business. Leisure facilities include play areas, bike trails for all levels of experience, picnic areas, cycle hire, walks and parking facilities as identified within section 5.3 of the National Plantation Management Plan. See recreation and access map 5.

The Plantations were established over a hundred years ago on former agricultural ground. There are no classified or registered or statutory historical features within the estate, however there are many Tholtans²², often found scattered across the Manx landscape and several are known within the plantations. These derelict buildings provide a glimpse into the island's rural past and the lives of those who once inhabited them. When planning operations, FALD will ensure all heritage features are conserved and managed in accordance with UKFS, UKWAS and Manx National Heritage guidance (see Section 5. National Plantation Management Plan).

²¹ <https://www.gov.im/media/1352012/our-landscape-our-legacy.pdf>

²² Manx word for describing the ruins of an old home

3.3. Restructuring & Landscape

i) Current plantation composition

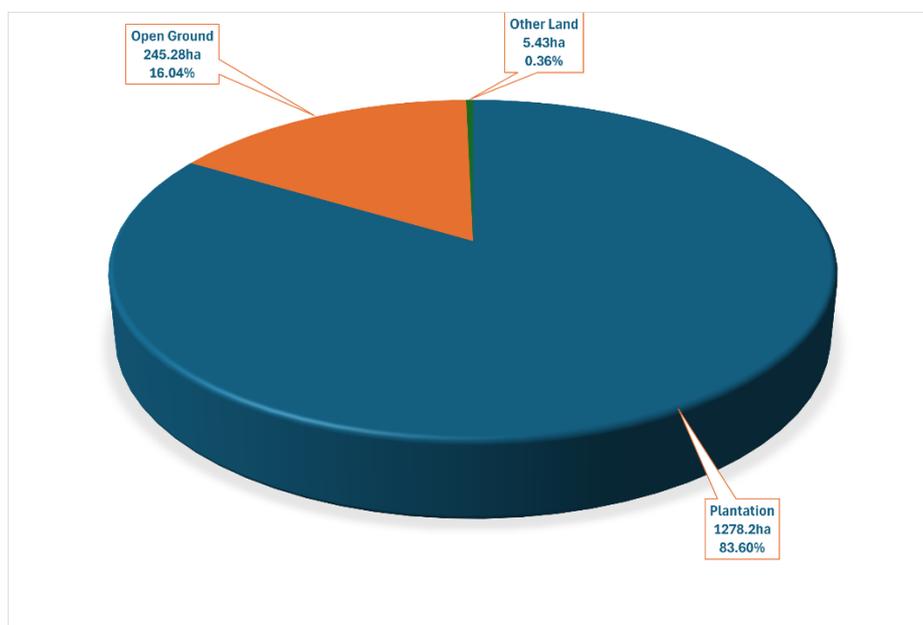


Chart 1 - The current DMU land use

Land Use	Hectares	Area %
Plantations	1278.20	83.6
Open ground	245.28	16.04
Other land (Water & infrastructure)	5.43	0.36

Table 4 - The current land use on the Isle of Man

The area covered by the DMU amounts to 1,528.95 ha of which 1,278.20 ha is woodland. Of the planted area, 70% is conifer and 13% is broadleaved woodland. Of the plan areas, 245.28 ha is currently open space; this element will increase and decrease rotationally due to usual clear-felling, thinning and restocking operations and natural regeneration. The plantation will be managed sustainably in line with, FSC®, UKWAS and UKFS guidance (see Section 2.9 in the National Plantation Management Plan).

Species	Sitka spruce	Mixed conifer	Mixed Broadleaf	Open Ground	Other Land	Water	TOTAL
Hectares	567.43	506.59	204.22	245.28	5.19	0.24	1528.95
Area %	37.11	33.13	13.36	16.04	0.34	0.02	100

Table 5 - The current species composition of the plantations within the DMU

See current species maps appended.

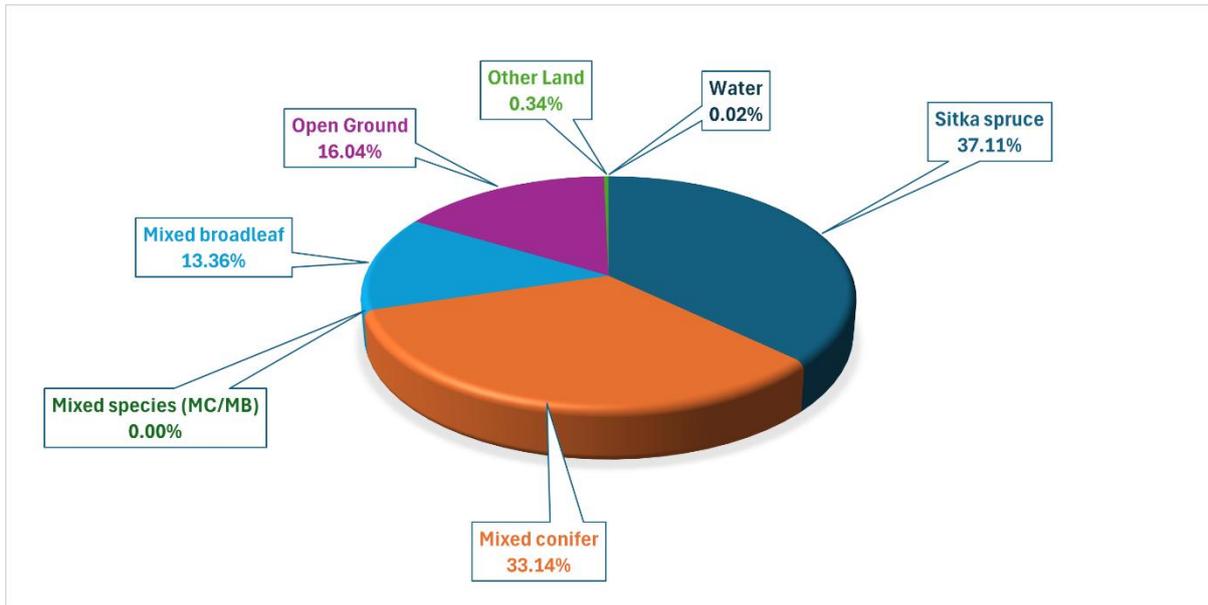


Chart 2 - The current species composition of the plantations within the DMU

The current plantation age class distribution shows a highly uneven structure resulting from historically variable planting levels over time. Older age classes are present but generally limited in extent, reflecting low and incremental woodland establishment during the early to mid-twentieth century. The bulk of the existing forest resource is concentrated in stands established from the late 1950s through to the early 1990s, which now form the core of the mature and mid-rotation woodland. More recent planting is comparatively patchy and smaller in scale, leading to a thinner representation of younger age classes. Overall, the distribution highlights a reliance on a small number of planting periods to sustain current woodland function, underlining the need for more consistent establishment and restocking to secure long-term continuity, resilience, and balance across age classes.

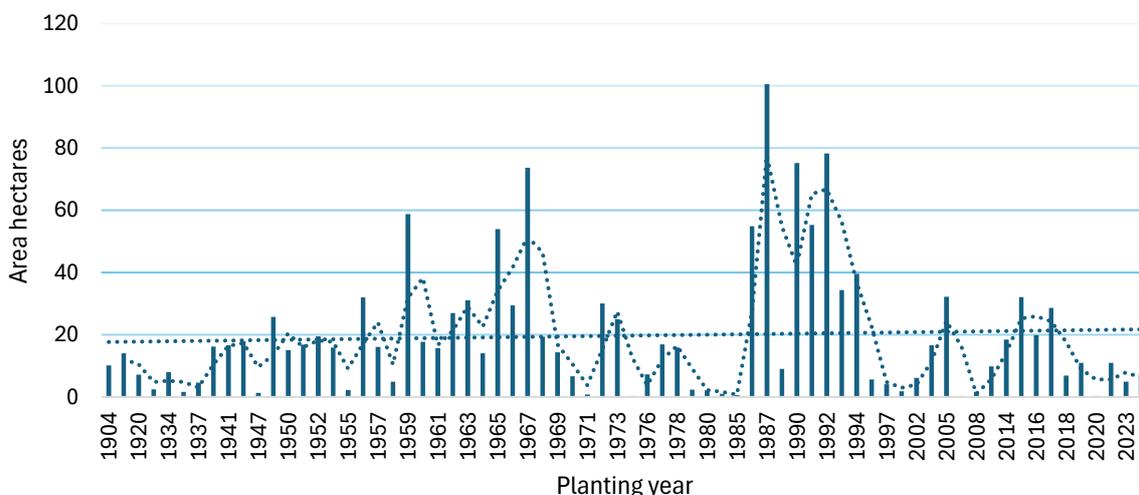


Chart 3 - Current age class distribution within the DMU

Management implications

- **Future age-class imbalance:** Without continued and planned establishment, the current concentration of young woodland risks translating into future gaps in productive and mature age classes.
- **Timber supply and income:** The limited extent of mid- to late-rotation woodland constrains short- to medium-term timber availability, with most yield deferred to later decades.
- **Biodiversity and habitat continuity:** A young-skewed age structure reduces the availability of mature woodland habitats, potentially limiting structural diversity and species reliant on older stands.
- **Resilience and risk:** Concentration of age classes increases vulnerability to pests, disease, climate stress, and storm damage affecting particular cohorts simultaneously.
- **Strategic response:** Long-term management should prioritise smoothing the age-class distribution through consistent future planting, retention of selected stands to maturity, and diversification of structure to improve resilience, ecological value, and landscape outcomes.

ii) Yield Class

The measured yield class for Sitka spruce ranges from 8 –24 and Mixed Conifer (MC) from 6 – 18. The minor elements of slower growth with crops established on poorer soils and heather checked areas such as Glion Gill. The higher YC 12 - 24 indicates the plantation is highly productive and with conditions suitable for growing commercial Sitka spruce and MC.

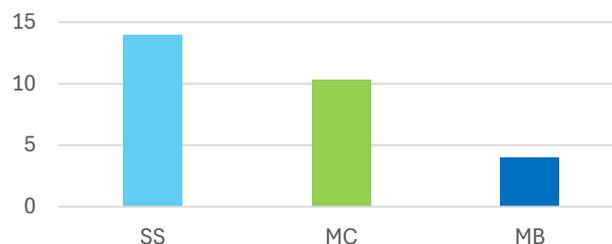


Chart 4 - Average Yield Class by Species within the DMU

iii) Wind Hazard Classification

The National Plantation Management Plan identifies the wind hazard class (WHC) ranging from 2 – 5 across the Island however, some areas of the north district lie within sheltered valleys with diverse conifer and area of SNW and other mixed woodland such as at Skyhill and Ballaugh. This allows the potential for the increased use of LISS in the future.

3.4. Concept & Analysis

The operational and silvicultural considerations of management are identified on the concept and analysis maps which identifies and considers the wider Island environment and considerations for management of our plantations with reference to section 2.9 of the National Plantation Management Plan.

The plantations are of local landscape importance. The plan identifies the key opportunities and constraints of the plantations in relation to the long-term forest structure and identifies opportunities to;

- Re-design the overall scale and shape of felling coupes and the internal structure and edges to fit closely with the local landscape character.
- Assess where to promote higher proportion of open spaces and broadleaved woodland within the plantation as it is progressively restructured in the coming years, to reduce the overall impression of blanket coverage.
- Diversify species composition and structure, and plan sympathetically designed and appropriately scaled interventions to improve and maintain the visual appearance of the plantations. It is envisaged that there will be greater opportunity to increase the use of mixed native broadleaves with open space within the plantation boundary to improve the aesthetic value both internally and in the wider landscape.

This will be achieved by the increased use of open ground with broadleaves to provide connectivity between areas of woodland for wildlife, watercourses and longer-term structure between coupe boundaries and the use of LISS.

Axnfell plantation is a dark skies area situated above Laxey Glen. The plan is to re-plant with native broadleaved species across all areas that are clear-felled, whilst retaining well thinned mature stands as natural reserve, prioritising extensive deadwood and diverse structure. Some areas within will be managed as LISS through sensitive selection of conifers alongside accessible areas to gradually convert the plantation to native broadleaf.

Skyhill will utilise LISS through use of shelterwood systems alongside the D10 'Sky Hill Road'. The aim is to maintain a sense of continuity in the landscape and minimise the visual impacts of felling on this visually sensitive woodland above Ramsey and Churchtown, enhancing the existing Semi Natural Woodland (SNW) features above Glen Auldyn.

At Tholt y Will, LISS will be employed on the lower accessible slopes to maintain the existing diverse structure and minimise disturbance alongside the river Sulby and reservoir. The less accessible upper reaches will be gradually felled and replanted to soften the linear edges and provide transition with the upper heathland habitat with shrub species and increased open ground. Younger stands will be thinned at regular intervals to increase resilience against wind and promote opportunities for natural regeneration.

Colden & Injebreck are located in the Baldwin reservoir valley. The windblow above the reservoir will be cleared and replanted with native broadleaves, while the rhododendron is managed to reduce impact from invasive non-native species (INNS).



Image 2 - Photo showing example of the 'green lace' widening forest rides, recruiting natural regeneration and long-term retentions such as pine.

The internal U69 path and ride will be enhanced through widening and exposing features such as rocky outcrops and retaining pine and standing deadwood, while transitioning riparian zones managed for native broadleaves and open ground along the river valley.

Transition with the ASSI heather moorland will be managed to control regenerating Sitka spruce and fencing will be used to protect against grazing by livestock. Veteran trees will be retained, with the old beech hedge banks of Injebreck being of particular interest.

Eairy Beg and Ballig are found immediately alongside the main A3 arterial road, PROW 118 to Eairy Beg and Glen Helen. Opportunity will be

taken to remove the infected larch with natural regeneration and planting with native broadleaved species helping to soften the road edge using. This will enhance the visual appeal of Glen Helen and improve the important riparian corridor of the river Neb and the registered tree area above Tynwald Mills.

Glion Gill is in early pole stage and will therefore be reviewed for the potential for early thinning to provide long term stability and opportunities for future LISS subject to access and growth. Larch will be targeted for removal at the early stages with replacement trees likely consisting of pine and spruce. Mixed broadleaf is managed in riparian gullies at low density for diversity and biodiversity.

Heather checked crops will be cleared to enable restoration to heathland and help provide connectivity with upland heath ground and the ASSI at Greeba hills to support the Nature Recovery Network. Otherwise, checked stands will be retained as areas of Long-Term Retention (LTR) providing habitat for breeding and foraging birds.

There is also good opportunity to link isolated plantations with other areas of 'wooded heath' habitat that will be investigated at Sartfell and Slieau Maggle to provide greater continuity in the landscape.

3.5. Future Composition and structure

The plantations will be managed in line with reference to Section 2.9 (Silviculture) and Section 7 (Operational Plans) of the National Plantation Management Plan, through a process of restructuring by clear fell and replanting to create a more dynamic age structure and promote greater diversity.

i) Harvesting

The key management objective is to sustainably produce quality conifer and logs of varying sizes for a variety of markets, whilst conserving other important features. FALD have had to adapt harvesting operations over the last 10 years in response to windblow events and the declining health of infected Larch and pine crops, with many being removed decades before their due felling dates. However, this has allowed a much wider range of species to be introduced into the plantations, building on resilience to the future impacts of pests, diseases and climate change over the next century.

The effect of DNB on the more mature Corsican pine and Scots pine stands is currently moderate and FALD hopes to be able to manage these on their conventional economic rotation cycle.

Lower Impact Felling Systems (LISS) will be used on areas such as Skyhill on both broadleaf and conifer crops in specific areas to help develop mixed stands and mitigate potential landscape impacts of clear-fell. Methods such as crown thinning and small group felling (<2ha) in the LISS stands will be used to encourage regeneration, and where present, allow it to become established. LISS or coupe felling will not take place until the adjacent felled areas have become fully established (2m growth).

The plantations are currently subject to increasing wind blow and are largely un-thinned. However, some of the younger stands such as at Tholt y Will, Glion Gill are of a younger age class whilst others such as at Ballaugh are already in transition and allow for opportunities to be taken to thin and promote long term stability and future opportunities for LISS.

ii) Intended Land use

The overall proportion of plantation habitats and the current balance of 70.25% conifers, 13.35% broadleaves and 16.04% open habitats will generally continue over the next rotation. The current age structure is reasonably diverse as noted in section 4.4.



Image 3 - The photo highlights the opportunity to recruit significant native broadleaf and other species from within the canopy where ground flora exhibits species associated with semi natural woodland.



Image 4 - The design of the existing forest road and rides enables felling patterns to be employed which soften linear boundaries, improving the plantations appearance in the landscape; constraints such as wind blow place an emphasis on early felling to achieve

Due to the early removal of windblown and infected larch over the next 10 years, we will see an increase in young stands and a drop off in mid and late rotation trees. This will be a short-term pattern, with a gradual reversion to mid rotation trees dominating the plantation structure.

To increase plantation-scale resilience to current and future pests, diseases and climatic changes we aim to introduce a wider range of tree species during restock where appropriate. This forms part of our

portfolio approach to restock, which also includes accepting natural regeneration and using planting stock of nearest local provenance and/or from 2 to 5 degrees south where possible.

Our objective is that no one species will dominate the future plantation structure, and a wider variety of species will gradually become established over the next 20 years, including some mixed stands.

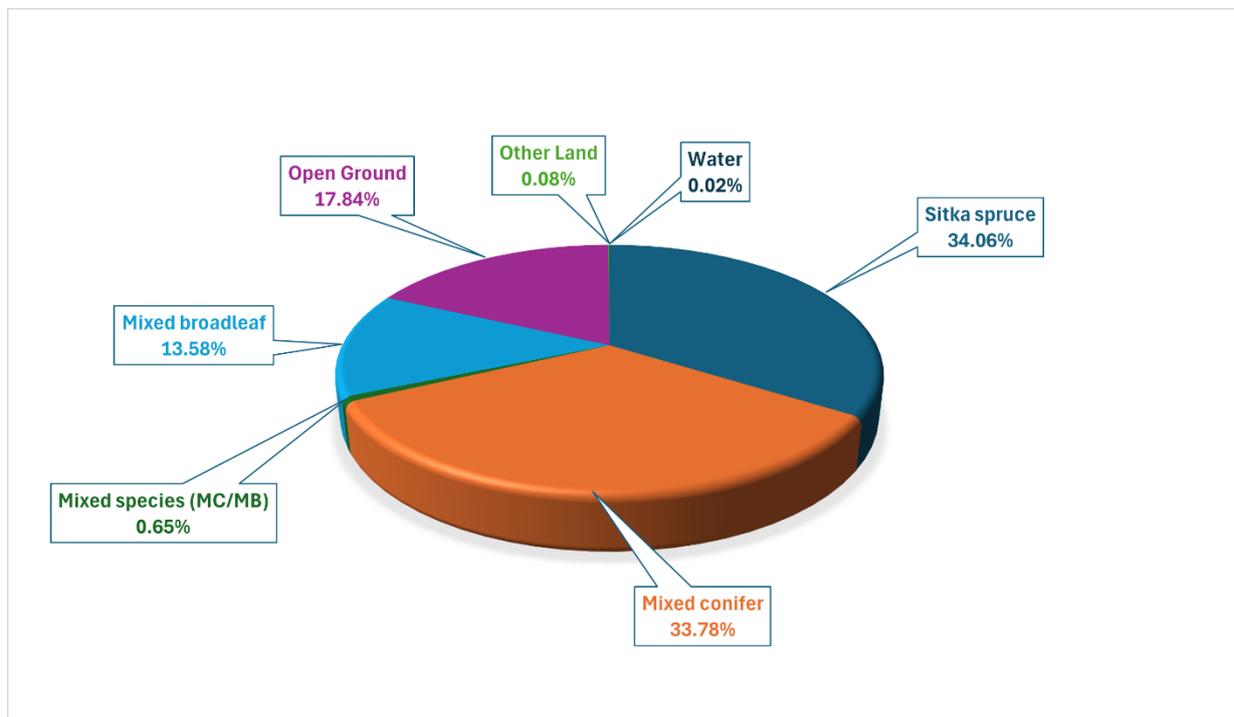
Broadleaf stands will be restocked using a combination of planting and natural regeneration where site conditions allow. Management operations will look to develop stands of high-quality timber in both broadleaf and conifer stands.

The proposed proportions of species planned across the estate will be no more than 65% as a single species, 20% as secondary species and a minimum of 5% as native broadleaved species. This is shown over time on figures/Pie chart below and illustrated on the Intended Species Maps appended.

iii) Expected Species Composition

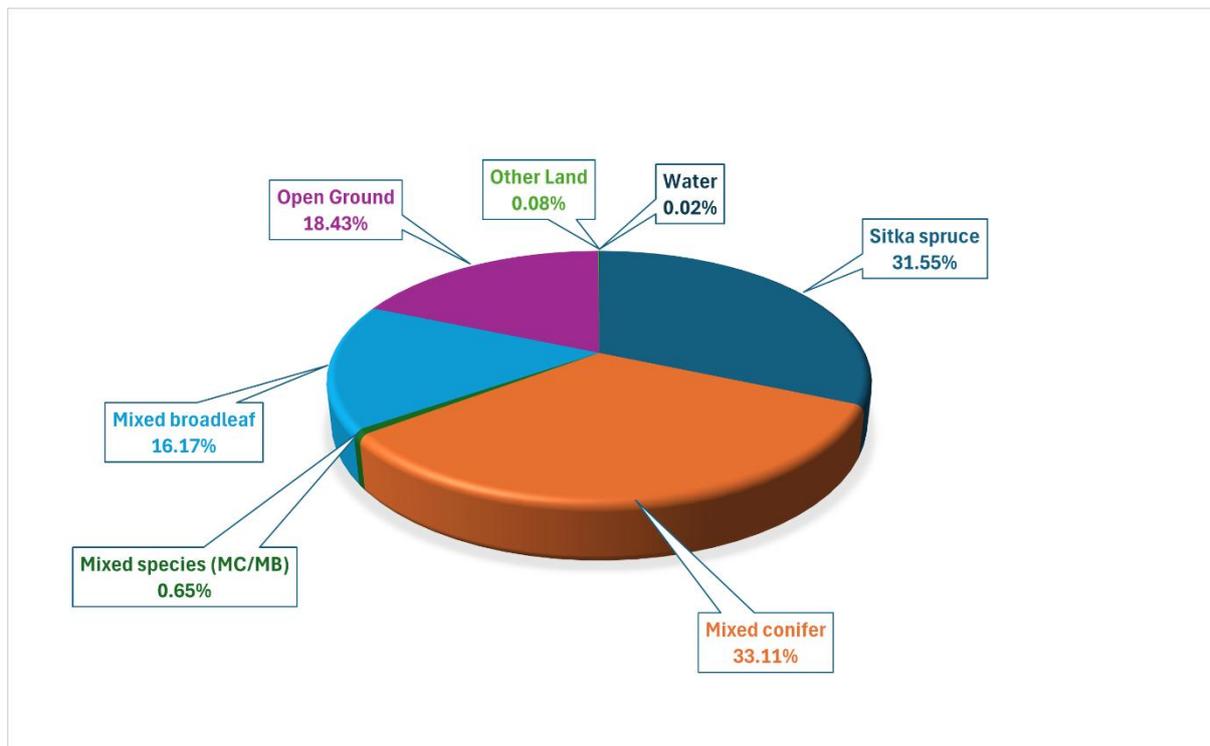
Species	Sitka spruce	Mixed Conifer	Mixed species	Mixed Broadleaf	Open Ground	Other Land	Water	Total
Hectares	520.71	516.41	9.98	207.63	272.76	1.22	0.24	1528.95
Area %	34.05	33.77	0.65	13.58	17.84	0.08	0.02	100

Table 6 above and Chart 5 below - Expected species composition by area as of 2030



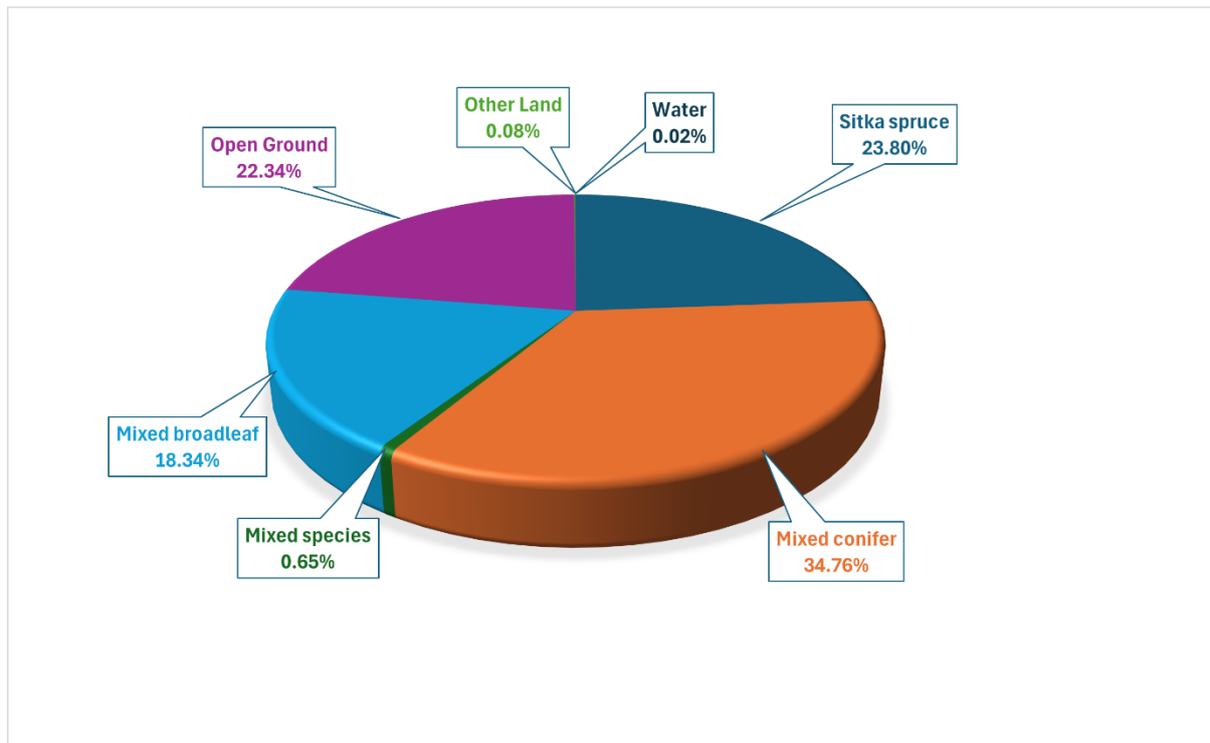
Species	Sitka spruce	Mixed Conifer	Mixed species	Mixed Broadleaf	Open Ground	Other Land	Water	Total
Hectares	482.26	506.08	9.98	247.20	281.69	1.22	0.24	1528.95
Area %	31.54	33.1	0.65	16.17	18.42	0.08	0.02	100

Table 7 above and Chart 6 below - Expected species composition by area as of 2035



Species	Sitka spruce	Mixed Conifer	Mixed species	Mixed Broadleaf	Open	Other	Water	Total
Hectares	363.95	531.51	9.98	280.45	341.6	1.22	0.24	1528.95
Area %	23.8	34.76	0.65	18.34	22.34	0.08	0.02	100

Table 8 above and Chart 7 below - Expected species composition by area as of 2045



The forecasted forest age class distribution shows a clear restructuring of the existing forest resource over the next 20 years, reflecting the planned progression of stands through felling, restocking, and subsequent age development. Older and mid-rotation cohorts established during earlier planting periods will increasingly move into, and beyond, conventional felling age, resulting in a gradual reduction in the area of older age classes as harvesting is implemented.

As these stands are felled and restocked, a pronounced shift occurs within the younger age classes. Restocked areas re-enter the age profile as very young woodland, creating a marked increase in early-stage age classes over the forecast period. This produces a visible redistribution of forest area from mature and over-mature classes into establishment and early rotation classes, rather than a net increase in overall forest area.

By the end of the 20-year forecast, the age structure becomes increasingly shaped by this wave of restocking, with a larger proportion of the forest concentrated in younger and early-mid rotation stages. While this restructuring supports the renewal and long-term productivity of the forest, it also results in a more uneven age profile in the medium term. The forecast highlights the importance of carefully phased felling and consistent restocking to

moderate these shifts, maintain continuity across age classes, and avoid the emergence of future gaps or excessive clustering of stands at similar developmental stages.

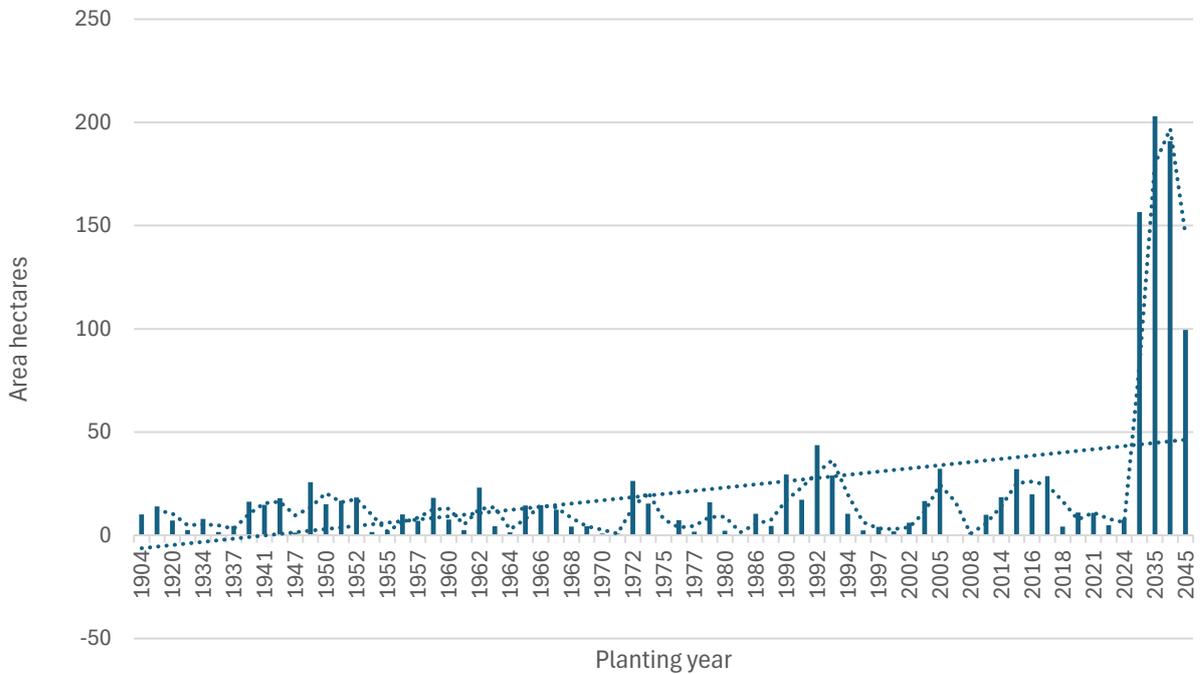


Chart 8 - Age class distribution in 20 years

4. Terms of reference

i) Management Objectives and Monitoring plan

Strategic Objective	NPP Objective	Plan Objective	Method	Review Period
Enhance and realise the sustainable productive potential of the existing commercial woodland areas	Enhance and realise the sustainable productive potential of the existing commercial woodland areas where appropriate over the long term, whilst maximising economic returns to support the Island's economy and contribute to the delivery of other objectives.	Continue to grow commercial broadleaves and conifer crops using a variety of species that will be more resilient to the impacts of climate change, pests and diseases to maximise yields. Ensure no one species dominates the forest in future rotations	Forecast and recorded DMU Production records. Diversify species composition and structure, and plan sympathetically designed and appropriately scaled interventions to improve and maintain the visual appearance of the forest	Timber receipts and District Management Unit (DMU) records reviewed annually and summarised every five years
	Increase the plantations climate resilience, diversifying species and enhancing biodiversity, using a range of silvicultural systems	Select suitable species and appropriate silvicultural techniques to regenerate commercially productive but more structurally and species diverse and resilient plantations	Record changes in the sub compartment data base (SCDB).	Operational Site Assessments (OSA) and DMU records reviewed annually and summarised every five years

<p>Reduce risk to people and the environment through sustainable woodland management, whilst increasing resilience against the future effects of climate change. Positively contribute to local flood risk management.</p>	<p>To map and identify areas of environmental value to be able to sensitively manage operations to minimise potential impacts whilst taking opportunities to maintain and increase areas available for important species and habitats and including more sensitive timber harvesting arrangements where feasible to reduce the impact of forest operations on soils and water on sensitive sites.</p>	<p>Assessment of impacts on protected species and their associated habitats and mitigation implemented in line with relevant legislation, guidance and policy, including Schedule 1 birds.</p> <p>To record increased use of native broadleaves and managed areas of riparian woodland.</p>	<p>Enhance riparian and natural reserve areas with increased use of native broadleaves and promote semi naturalness by the gradual removal of exotic species.</p> <p>Operations will consider potential impacts on protected species and their associated habitats, including and Schedule 1 birds. Where required, suitable mitigation will be implemented in line with relevant legislation, guidance and policy.</p> <p>Local habitat records checks, site surveys and Operational Site Assessments.</p> <p>Diffuse pollution control planning and record water quality during potentially hazardous operations.</p>	<p>Pesticide decision records, OSA and DMU records reviewed annually and summarised every five years</p>
<p>Protect and enhance habitats to maximise their conservation potential whilst committing to dealing with plant health issues</p>	<p>Limit and control the impact of invasive species on woodland habitats and reduce the adverse</p>	<p>To record partnership working to deliver nature conservation across the</p>	<p>Continue to work in partnership with stakeholders to deliver nature conservation across the</p>	<p>OSA and District management unit records reviewed annually and</p>

and invasive plants and animals that threaten habitats and biodiversity	impacts to native habitats and their flora and fauna	district including control of invasive species	district, include removal of invasive species & Manage peatland habitats away from areas with increased visitor pressure that link to the adjacent ASSI	summarised every five years
	Work with interested parties to explore ways to maintain or improve features of cultural or heritage value to the local community.	Undertake appropriate management to recruit future veteran trees and increase the volume and distribution of deadwood away from areas of high public use.	Creation of heathland corridors deadwood and scrub habitat including >1.5ha of open areas at Tholt y Will Conserve features of cultural significance including veteran trees, earthworks and <i>Tholtan features</i>	OSA and DMU records reviewed annually and summarised every five years
Promote the plantations as a key asset for the Island its residents and visitors. Plantations will continue to embrace and enhance public recreation and be easily accessible enhance public recreation and be easily accessible.	Provide safe and accessible woodlands for quiet recreation and adventurous activities, to enable people to experience the potential health and wellbeing benefits.	Monitor access, signage and maintenance records of facilities including paths and mountain bike tracks	Maintain forest routes in good condition and liaise with hauliers and local users.	OSA and DMU records reviewed annually and summarised every five years

	Developing partnership with private businesses and public bodies to expand and improve recreational opportunities across the estate.	Facilities developed in partnership are protected from forest operations and opportunities taken to maintain or further develop them.	Promote the use of the plantations from which an extensive network of promoted trails for walkers, horse riders, and mountain bikers originates.	Operational Site Assessments and District management unit records reviewed annually and summarised every five years
	Creating a wide variety of opportunities for schools, groups, families and individuals to engage with and learn about trees and forests in accordance with the National and District Strategies.	Consultation record held of management plan process and ongoing facilities are suitably signed with relevant information pertaining to forest operations	Support the recreation and leisure businesses on site and in the local area by creating a diverse forest that will deliver a wide range of ecoservices.	OSA and Records of consultation and District management unit records reviewed annually and summarised every five years

ii) Long Term Retention Areas

Zone	Plantation	Area (ha)	Rational for retention
Tholt y Will	Slieau Curn	24.1	To provide buffer with area of heath and wildlife site
Tholt y Will	Tholt y Will	9.9	Maintain long term structure in visually important area and protect important watershed
Tholt y Will	Ballaugh	2.82	Maintain long term structure and opportunity to recruit mixed understory and mature & veteran trees
Colden	Greeba	3.59	To provide a buffer withing the designated wildlife site.
Colden	Beary & Vaaish	10.8	Maintain long term structure in visually important area and opportunity to recruit mature & veteran trees whilst protecting the important watershed area
Laxey	Barroose	2.39	Isolated woodlands providing important visual continuity with Conrhenny community woodland
Sulby	Gob y Volley	4.29	To provide buffer with neighbouring RAMSAR site and maintain structure of woodland in this visually important location above the northern lowland plains area
Ramsey	Skyhill	3.03	Maintain long term structure in visually important area and opportunity to recruit mature & veteran trees whilst protecting the important flood risk area
Colden	Glion Gill	8.06	Maintain long term structure in visually important area and opportunity to recruit mature & veteran trees whilst protecting the important watershed area
Total area of LTR		68.98	

5. Operational Plans

i) Summary of North District Plan of Operations

Plantation	Activity	Year		
		0-5	5-10	11 - 20
Per felling plans*	Clear felling & Restocking (Cmpt listed per production forecast)	X	X	X
Per felled areas and intended land use maps	Strimming to control vegetation and beat up failures. Protective barrier applied for weevil as req.	X	X	X
All	Production records	X	X	x
Glion Gill & Tholt y Will	Heathland restoration & corridors			
All (inc. Injebreck hedge banks, Skyhill, Beary & Vaaish)	Dead wood and veteran retentions – identified and recorded Removal of invasives where identified. (Colden Rhododendron/Conrhenny & Knotweed & Gunner	X	X	X
Greeba Ballacuberagh Glion Gill, Slieau Curn & Managh	HCV and BAP records of maintenance activities including removal of SS regen	X	X	X

Tholt y Will, Ballure, Colden & Injebreck	Watercourse & watershed monitoring (operational Site records)	X	X	X
Brookdale, (Skyhill, Ballugh, Axnfell, Conrhenny)	Thinning (LISS area to be determined by regen and beat forester at a local level	X	X	x

6. Glossary of terms

Term	Meaning
ASSI	Area of Special Scientific Interest.
APHA	UK Animal and Plant Health Agency
BAP	Biodiversity action plan.
Biodiversity	The variety of ecosystems and living organisms (species), including genetic variation within species.
Buffer	An area of land where use and/or management is restricted to conserve or enhance the value of adjacent environmental, social or cultural values or heritage assets. Examples of buffering include protecting a water course from polluted run-off, a semi-natural woodland or other valuable habitat from invasion by seed from a nearby non-native source, or an historic feature from physical damage by growing trees and roots.
CCF	Continuous Cover Forestry is a silvicultural system that maintains the forest canopy at one or more levels without clearfelling.
Clearfelling	Cutting down of an area of forest (typically the felling of an area greater than 0.25 ha if the coupe is within a larger area of forest). Sometimes small clumps or a scatter of trees may be left standing within the felled area.
COSHH	Control of Substances Hazardous to Health - The law requires you to adequately control exposure to materials in the workplace that cause ill health.
Coupe	An area of woodland that has been clearfelled or is planned for clearfelling.
Diffuse Pollution	Diffuse pollution comes from non-point sources, widespread activities in the forest environment. Of relevance to woodland operations are oil spills and leaks, cutting-chain lubricants, siltation of watercourses, pesticide or fertiliser run-off and smoke.
District Management Unit (DMU)	The area subject to a forest management plan or proposal. A convenient management area determined by the nature and location of the woodland, the management objectives and proposed operations. Extensive DMUs allow a strategic approach to be taken to meeting certification requirements and guidelines.
DNB	Dothistroma needle blight
Ecosystem	A community of plants and animals (including humans) interacting with each other and the forces of nature.
FISA	Forest Industry Safety Accord.
Forest management plan	A plan which states the objectives of management together with details of forestry proposals over the next 5 years and outlines intentions over a minimum total period of 10 years. Forest plans allow managers to communicate proposals and demonstrate that relevant elements of sustainable forest management have been addressed, and can be used to authorise thinning, felling and other management operations.
Forest resilience	The ability of a forest system to recover from short-term disturbances or to adapt to long-term changes, such as climate change, pests or diseases, while retaining or recovering the same basic structure and ways of functioning. Resilience should be considered in both ecological and economic terms.
FSC®	Forest Stewardship Council
GHG	Greenhouse Gas - Greenhouse gases are atmospheric gases that trap heat and warm the Earth's surface, creating a greenhouse effect.
GDPR	General Data Protection Regulations
GMO	Organisms in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination. This includes gene editing.
HCV	High Conservation Value refers to biological, ecological, social, or cultural features within natural habitats that are of outstanding significance or critical importance. These may include, for example, concentrations of endemic species, rare habitats, or sites of cultural or spiritual value. The identification, management, and protection of HCVs are detailed in Section 3 of FSC-STD-30-010.
HHP	Highly Hazardous Pesticides
HSE	Health and Safety Executive.

INNS	Invasive Non-Native Species (INNS) are animals or plants introduced outside their natural range that spread and cause harm to biodiversity, ecosystems, the economy, or human health
IMPNW	MWT (2015) Indicative Map for Planting of Native Woodland on the Government Estate - The indicative map within the document shows areas with the potential to achieve maximum biodiversity goals.
LERAP	Local Environmental Risk Assessment for Pesticides.
LISS	'Lower-impact silvicultural systems' including group selection, shelterwood or under-planting, small coupe felling, coppice or coppice with standards, minimum intervention and single tree selection systems which are suitable for windfirm conifer woodlands and most broadleaved woodlands.
LTR	Long-term Retention - refers to trees or groups of trees retained on site beyond the normal felling age, usually for biodiversity, landscape, or heritage value, and intended to remain standing for the long term.
MBRP	Manx Biological Recording Partnership
MWT	Manx Wildlife Trust
MNH	Manx National Heritage
MU	Manx Utilities
Native, non-native, endemic	Plants and animals which have arrived here naturally and survived, prior to or since the Island became separated from the two main adjacent Islands are described as native. Non-natives are those brought by man either deliberately or accidentally. If they occur on an island or in a region and no-where else on earth they are described as endemic.
Natural Regeneration	Plants growing on a site because of natural seed fall or suckering. The term is also used to describe the silvicultural practices used to encourage natural seeding and establishment.
Natural Reserve	A Natural Reserve is an area of woodland set aside primarily for the conservation of natural processes and biodiversity, where active management is absent or minimal, and intervention is generally limited to safety or statutory requirements.
NNR	National Nature Reserve.
NTFP	Non-Timber Forest Product.
NVC	A standardised system developed by the Joint Nature Conservation Committee (JNCC) to classify and describe the plant communities of Britain.
Operational Plan	The operational details of how planned work will be implemented at site level within the framework of a forest management plan.
Pesticide	Any substance or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth. This definition includes insecticides, rodenticides, acaricides, molluscicides, larvicides, nematocides, fungicides and herbicides.
Pest	Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants and plant products, materials or environments and includes vectors of parasites or pathogens of human and animal disease and animals causing public health nuisance.
Plantation	A forest area established by planting or sowing with using either alien or native species, often with one or few species, regular spacing and even ages, and which lacks most of the principal characteristics and key elements of natural forests. The description of plantations may be further defined in FSC® Forest Stewardship Standards, with appropriate descriptions or examples, such as: <ul style="list-style-type: none"> • Areas which would initially have complied with this definition of 'plantation' but which, after the passage of years, contain many or most of the principal characteristics and key elements of native ecosystems, may be classified as natural forests. • Plantations managed to restore and enhance biological and habitat diversity, structural complexity and ecosystem functionality may, after the passage of years, be classified as natural forests. • Boreal and north temperate forests which are naturally composed of only one or few tree species, in which a combination of natural and artificial regeneration is used to regenerate forest of the same native species, with most of the principal characteristics and key elements of native ecosystems of that site, may be considered as natural forest, and this regeneration is not by itself considered as conversion to plantations.

RA	Registered tree area
RAMSAR	A Ramsar site is a wetland designated under the 1971 convention in the Iranian city of Ramsar.
Restocking	Replacing felled areas by sowing seed, planting, or allowing or facilitating natural regeneration.
Restructuring	Diversifying the distribution of age classes of a forest, usually by advancing felling in some areas and retarding it in others. Restructuring is usually associated with wider measures to redesign a forest as part of a forest management plan.
Ride	Permanent unsurfaced access route through woodland.
Riparian	Relating to or situated adjacent to a watercourse or water body.
Rotation	The period required to establish and grow trees to a specified size or condition of maturity. The period varies according to species and end use, but for conifers in the UK this is usually about 35 years and for broadleaves at least 60 years.
SCDB	Sub Compartment Database - a digital record that contains detailed information about specific areas within a forest, called sub-compartments.
Silviculture	The art and science of controlling the establishment, growth, composition, health and quality of forests and woodlands to meet the targeted diverse needs and values of landowners and society on a sustainable basis.
SNW	Semi-Natural Woodland.
Thinning	Tree removal, which results in a temporary reduction in basal area, made after canopy closure to promote growth and greater value in the remaining trees.
Watercourse	Any directly connected natural or man-made channel through which water flows continuously or intermittently. References to forestry practice on adjacent land should be taken as applying also to adjacent water bodies (e.g. ponds and lakes).
WHC	Windthrow Hazard Classification.
Windthrow risk	A technical assessment of risk based on local climate, topography, site conditions and tree height.
Yield Class	Yield class is a measure of the productivity of a forest, expressed in cubic meters per hectare per year, indicating the potential timber yield based on tree species and site conditions.

7. Maps

Location map

Zonal map

Designations map

Recreation and access map

Species maps (by zone)

Concept map

Analysis map

Felling plan and systems map (by zone)

Intended land use (10 year – by zone)

Management Zones - Forest Plan has been divided into 5 zones so that felling maps can be clearly shown at scale. The names used by Forestry Directorate to refer to each forest area are shown on the adjacent map