

Section 13

FORESTRY

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Abbreviations

Abbreviation	Description
CO <sub>2</sub>	Carbon dioxide
DGFWS	Dumfries and Galloway Forestry and Woodland Strategy
EIAR	Environmental Impact Assessment Report
SF	Scottish Forestry
HA	Hectare
HMP	Habitat Management Plan
LTFP	Long Term Forestry Plan
SFS	Scotland Forestry Strategy
WCC	Woodland Carbon Code
TPO	Tree Preservation Order
DF	Douglas Fir
HL	Hybrid Larch
JL	Japanese Larch
JL/SP	Japanese Larch/ Scots Pine
LAR	Larch
LP	Lodgepole Pine
MAP	Maritime Pine
MB	Mixed Broadleaves
MB/OG	Mixed Broadleaves/ Open Ground
MC	Mixed Conifer
NF	Noble Fir
NS	Norwegian Spruce
NS/DF	Norwegian Spruce/ Douglas Fir
NS/HL	Norwegian Spruce/ Hybrid Larch
NS/JL	Norwegian Spruce/ Japanese Larch
NS/SP	Norwegian Spruce/ Scots Pine
OMS	Serbian Spruce
PYU	Yunnan Pine
SP	Scots Pine
SS	Sitka Spruce
SS/DF	Sitka Spruce/ Douglas Fir
SS/HL	Sitka Spruce/ Hybrid Larch
SS/JL	Sitka Spruce/ Japanese Larch
SS/OG	Sitka Spruce/ Open Ground
SY	Sycamore



# Section 13: Forestry

## 13.1 Introduction

- 13.1.1 The proposed Scoop Hill Community Wind Farm is partially located within the privately owned and managed commercial forestry plantations of Silton Forest, Brownhill, Kirk Hill, Dundoran, Dryfehead, Ewelairs and Laverhay, Cockplay, Priestgillhead, Ruegill Hill, Ramshaw Rig and Dod Knowe.
- 13.1.2 The proposed development area covers around 5,685 hectares (ha), of which 2,371 ha comprises forestry, located predominantly in the east of the wind farm site. The forest boundaries are shown in Figure 13.1.
- 13.1.3 This section of the Environmental Impact Assessment Report (EIAR) sets out information on the following:
- Forestry policy in relation to wind turbine development;
  - The response from consultees at scoping that relate to forestry;
  - A full description of the existing forestry;
  - Proposed forest activity;
  - Proposed forestry waste management strategy;
  - Potential effects of forestry activity; and
  - Forest management proposals.
- 13.1.4 This section highlights some of the effects of forestry activity, on other elements of this EIAR. These are assessed separately in their respective sections. It is therefore advised that this section should be read in conjunction with the following:
- Section 3 – Site Selection, Design and Evolution;
  - Section 5 – Socio-Economics, Population and Community Involvement;
  - Section 6 – Landscape and Visual Impact Assessment;
  - Section 7 – Ornithology;
  - Section 8 – Ecology; and
  - Section 10 – Hydrology, Geology and Hydrogeology.

## 13.2 Legislation, Policy & Guidance Context

- 13.2.1 The control of forestry felling is normally administered under the *Forestry Act 1967* (as amended) and woodland removal falls within the scope of *The Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999*. However, when forestry felling occurs as part of a development, the consenting process is covered by the *Town and Country Planning (Scotland) Act 1997* (as amended).

### Policy on Control of Woodland Removal (Updated 2015)

- 13.2.2 The Scottish Government’s *Policy on Control of Woodland Removal* was introduced in 2009 and updated in 2015. The policy provides guidance for proposals or decisions that either directly require the removal of woodland to permit development or involve the felling of trees for operational or safety concerns (Scottish Forestry, 2009).

- 13.2.3 The policy states that permanent clearance of trees should only be allowed where it would achieve significant and clearly defined public benefits (social, economic or environmental). There may also be situations where felling can be permitted when compensatory planting is undertaken elsewhere. Woodland removal, with an accompanying requirement for compensatory planting, is most likely to be appropriate where it would contribute significantly to:

- Helping Scotland mitigate and adapt to climate change;
- Enhancing sustainable economic growth or rural/community development;
- Supporting Scotland as a tourist destination;
- Encouraging recreational activities and public enjoyment of the outdoor environment;
- Reducing natural threats to forests or other land; and
- Increasing the social, economic or environmental quality of Scotland's woodland cover.

- 13.2.4 In addition, the felling of woodland areas without compensatory planting should only be acceptable under the following circumstances:

- Helping Scotland mitigate or adapt to climate change, facilitating appropriate development of renewable energy projects; and
- Sustainable economic growth and rural/community development, enabling appropriate economic development to proceed in areas of low income/high unemployment.

### The Waste Management Licensing (Scotland) Regulations 2011

- 13.2.5 *The Waste Management Licensing (Scotland) Regulations 2011* highlights the importance of waste management regulations and strategies, to be created and adhered to when forestry is felled and removed.
- 13.2.6 All forestry felling and waste management will be in accordance with the guidance and regulations set out in the policy above. Where possible, felling material will be used to help improve biodiversity and ecological productivity onsite.

### Scotland’s Forestry Strategy 2019-2029

- 13.2.7 *Scotland’s Forestry Strategy (SFS)* was introduced in February 2019 and provides an overview on the long-term framework for sustainable and expansive forestry operations and management.
- 13.2.8 One of the key priorities of the SFS is the betterment of forestry integration with other land uses, which includes maximising synergies and reducing conflict with other industries.

### The Forest and Water Guidelines (Updated 2019)

- 13.2.9 The Forest and Water Guidelines outline the guidelines and policies set in place of forestry management prior to and post felling. Felling and timber removal will be handled by the forestry management company, in accordance with the guidance outlined in the above.
- 13.2.10 The guidance states that where the felling of a development area exceeds more than 20% of the total forestry within 3 years, a separate water quality assessment should be undertaken. This would ensure that water quality is retained at the highest possible level.
- 13.2.11 This application is accompanied by a standalone outline Construction Environmental Management Plan (CEMP) with reference to a Pollution Prevention Plan (PPP) to be prepared in line with SEPA guidance. If the

application was granted planning consent, then the full and site specific CEMP would be produced and would be subject to approval by SEPA and the planning authority, prior to any construction commencing.

**Dumfries and Galloway Forestry and Woodland Strategy (2014)**

- 13.2.12 The Dumfries and Galloway Forestry and Woodland Strategy (DGFWS) outlines the regional policy strategy relevant to the Scoop Hill Community Wind Farm proposal. The DGFWS states that intelligent replanting in close proximity to the turbines can ‘*soften visual impacts whilst contributing to overall forest design objectives*’.
- 13.2.13 The DGFWS states that compensatory planting schemes should be located within the region where the wind farm is located, reflecting Scottish Forestry Strategy 2006 and Policy on Control of Woodland Removal objectives.
- 13.2.14 Another key theme is that wind energy developments integrate with forestry operations, ensuring that there is no overall loss of productive forestry.

**Development Plan Policy**

- 13.2.15 The Local Development Plan for Dumfries and Galloway Council (LDP2, 2019) has been considered during the design and evolution of the Scoop Hill Community Wind Farm to ensure the proposal is compliant with applicable forestry-related policies. The relevant planning policies associated with forestry are as follows:

Dumfries and Galloway Council - Local Development Plan 2 (2019)

**Policy NE6 – Forestry and Woodland**

The following policy will apply to those woodland/forestry felling, planting and replanting proposals which do not require planning permission but where the Council acts as a consultee to Forestry Commission Scotland.

The Council will support the creation and protection of sensitively designed and managed forests and woodlands.

Proposals should seek to ensure that ancient and semi-natural woodlands and other woodlands with high nature conservation value are protected and enhanced.

In determining its response to individual forestry felling, planting and replanting consultations where Scottish Forestry are the determining authority, the Council will:

- take into account environmental and other interests identified in the Forestry and Woodland Strategy including biodiversity, water (including flood risk management), soil and air, landscape; setting, historic environment and land restoration;
- consider the scheme’s location as set out in the Forestry and Woodland Strategy;
- seek to ensure an appropriate balance between both afforested and un-afforested areas in the locality;
- encourage planting of a type, scale, design, age, composition and species mix that is appropriate to the locality;
- actively encourage proposals to have a positive effect on nature conservation and/or natural and historic environment interest;

- encourage proposals to take account of possible recreational use in the design of any planting schemes and indicate how such recreational uses have been investigated; and
- ensure that proposals do not have an adverse impact on the road network.

**Policy NE8: Trees and Development**

In assessing development proposals, the Council will support proposals that:

- promote additional tree planting;
- protect and enhance woodland sites;
- maintain trees, woodlands (in particular ancient and semi-natural woodlands), and hedgerows (thereafter referred to as the ‘woodland resource’) and require developers to incorporate, wherever feasible, the existing woodland resource into their schemes;
- encourage planting of a type, scale, design, composition and species mix that is appropriate to its locality and appropriately incorporates the woodland resource into the overall design of the scheme; and
- show how existing trees will be appropriately protected during the construction period.

In submitting development proposals, details should be provided of the arrangements to be made for the long term maintenance of both the existing woodland resource and any proposed new planting, including providing adequate room for further growth.

If it is demonstrated to the satisfaction of the Council that it is not possible to retain the woodland resource then an appropriate replacement planting scheme will be required and agreed by the Council. Any such replacement planting scheme should normally be located within the site.

The processes and recommendations contained in BS 5837:2012, and any subsequent revised or amended document, should be taken into account in designing and implementing development proposals.

Where the works to a protected tree or trees forms part of a development proposal, the applicant should also demonstrate that:

- the benefits of the development, including any replacement planting, will outweigh the loss of or potential harm caused by the works to the tree or trees; and
- the development has been designed and located in order to minimise potential adverse impacts on the protected tree or trees.

Supplementary guidance provides further advice and guidance in respect of survey work, designing around trees, new planting, protection during construction, maintenance and removing existing trees.

- 13.2.16 The separate Planning Statement which accompanies this application, provides a detailed assessment of the planning and policy context relating to forestry, relevant to the proposed Scoop Hill Community Wind Farm.

**13.3 Scoping Consultation and Responses**

- 13.3.1 During the scoping process, several consultees provided responses regarding the impact deforestation may have on social, economic and environmental characteristics within the local area. Table 13.1 details the scoping comments of the consultees and the action taken by the Applicant.

**Table 13.1 – Scoping Consultation Responses**

Consultee	Scoping response	Action taken
Scottish Forestry (Scoping comments)	<p>Confirm their agreement to the terms of the Scoping Report. Agree that an application will require an EIA (para 3.1.1) and that Forestry will require a dedicated chapter.</p> <p>Are a number of Long Term Forest Plans (Ramshaw Rigg and Scoop Hill) and Forest Plans (Brown Hill and Fingland Fell) where the cumulative impact will need to be considered and addressed in line with restructuring plans that are already in existence.</p> <p>Also need to be assessment of the alignment and suitability of the existing forest road structure for wind farm traffic together with any requests that may be made to site a met mast, which might also impact upon forest stability.</p>	<p>The Applicant has completed a standalone forestry chapter, within the EIAR (Section 13; Forestry).</p> <p>This chapter details the existing forestry conditions and details of Long Term Forestry P and Forest Plans which have been made available.</p> <p>Consideration has been given to the impacts on ecology in Section 8 of this EIAR. In order to improve both biodiversity and ecological productivity, a separate habitat management plan (HMP) has been created.</p> <p>CWL's own civil engineers have made numerous visits to the development area over the past 2 years. Much of the existing access network within the development boundary is suitable. Where tracks require alteration such as widening, a strategy has been set out in Section 2 of this EIAR, in Figure 2.11.</p> <p>Two temporary met masts have already been located in areas outwith of forestry on open ground. These two temporary met masts, which have been approved by DGC, are operational, and the same locations will be utilised for the permanent onsite met masts. A third permanent met mast is proposed and this too will be located outwith of the forestry on open ground.</p> <p>CWL met with A. Sheridan of Scottish Forestry on 22/01/2020 to discuss the proposal</p>
Scottish Forestry (Gatecheck 1)	<p>Confirm there are a lot more LTFPs either agreed or in final stages of approval:</p> <ul style="list-style-type: none"> <li>- Dundoran Plantation – no LTFP and forested</li> </ul>	Additional information noted and will be addressed within Section 13: Forestry.

	<ul style="list-style-type: none"> <li>- Fingland Fell LTFP should not be affected</li> <li>- Priestgillhead LTFP in a final stage of approval</li> <li>- Ewelairs and Laverhay LTFPs – in process</li> <li>- Brownhill LTFP approved</li> <li>- Dryfehead LTFP approved</li> <li>- Cockplay LTFP approved</li> <li>- Dodknowes UKWAS/Management plan approved</li> <li>- Ramshaw Rigg LTFP approved</li> <li>- Scoop Hill and Silton LTFP being merged in 1 LTFP and in final stages of approval</li> </ul>	
Dumfries and Galloway Council	<p>It would be appropriate that there should be consultation with nearby forest managers and timber hauliers through the office of the South of Scotland Timber Transport Officer to co-ordinate timber haulage operations that may use the access route during the construction period, to minimise the cumulative impact on communities and road users.</p> <p>Examination of the Council's HER notes a number of historic assets within the footprint of the proposed development. Some of these may have been affected by forestry activity, so a walkover survey will be required to assess the extent and condition of remains.</p>	A full LVIA report can be found in Section 6 of the EIAR and the relevant forestry sections can be found summarised in Section 13.9.
SEPA	<p>SEPA highlight the need for a strategy for any forest felling (any reuse of forestry waste must be justified in terms of delivering increased biodiversity/habitat), along with a map and table detailing forest removal.</p> <p>Key holing must be used wherever possible as large-scale felling can result in large amounts of waste material and in a peak release of nutrients which can affect local water quality.</p> <p>The supporting information should refer to the current Forest Plan and measures should comply with the Plan where possible.</p>	<p>This section details the existing forestry conditions and any long term forestry plans which are in place (this includes both approved plans and those awaiting approval).</p> <p>No clear felling is proposed, instead key-hole felling will take place, in order to reduce the impact the wind farm will have on forestry operations in the development area. and reduce the volume of forestry to be felled.</p> <p>Section 10 of the EIAR includes a full hydrological assessment with proposed mitigation.</p> <p>The application is also supported by an outline Construction Environmental</p>

	Clear felling may be acceptable only in cases where planting took place on deep peat and it is proposed through a HMP to reinstate peat-forming habitats.	Management Plan (CEMP) which sets out proposed methods of drainage, water quality protection and forestry waste management.
NatureScot	Forestry areas within the development area may be suitable for red squirrel and pine marten. The presence and impact on these species should be assessed within an EIAR.	A full ecological impact assessment has been conducted by qualified ecologists at Starling Learning, and this has included surveys for Red squirrels and pine marten. Details of the surveys and the results can be found in Section 8 of this EIAR.
Marine Scotland	The EIA should consider the potential impact of felling on the water quality and aquatic biota and included in the water quality monitoring programme	A full hydrological assessment and mitigation report has been conducted by a qualified hydrologist and can be seen in Section 10. The effects and mitigations applied to forestry areas have been summarised in Section 13.9. Water quality and aquatic biota will be included in water quality monitoring.

### 13.4 Good Practice Guidance

13.4.1 Proposed forestry activities shall be carried out in accordance with the following guidance:

- Scottish Forestry Guidelines;
- Forestry Commission Forest and Water Guidelines;
- UK Forestry Standard and associated Guidelines;
- UK Woodland Assurance Standard; and
- SEPA Management of Forestry Waste guidance.

### 13.5 Baseline Forestry Conditions

13.5.1 Forestry accounts for 2,371ha of the 5,685ha proposed development area.

13.5.2 The existing forestry onsite comprises typical coniferous upland plantations, managed in line with other commercial plantations in Scotland and providing an alternative economic use to upland agricultural land.

13.5.3 Forestry species within the development area are predominantly of a commercial crop, with smaller pockets of native mixed broadleaved species to promote ecological improvements within the area.

13.5.4 The Scottish Government ‘*Spatial Information Hub*’ (2019), can no longer be accessed by the public. Therefore, CWL has been unable to accurately determine if any Tree Preservation Orders (TPO’s) are within the development boundary. The Dumfries and Galloway Council Tree Preservation Order Register (Dumfries and Galloway Council, 2019), provides only addresses for the TPO’s in Dumfries and Galloway. Consequently, by using this list it has been determined that there are no TPO’s within the development boundary.

13.5.5 The commercial forestry located within the site boundary comprises of 12 different plantations, owned by several different organisations and managed by different forestry management companies. These are Tilhill Forestry, Fountains Forestry and Eskdalemuir Forestry, with Crown Estates Scotland managing their own plantation at Dundoran.

13.5.6 The majority of the forestry data has been provided to the Applicant/CWL from the forestry management companies, however some long term forestry plans and forestry management plans have not been provided. Of the five plans which have not been provided, four are due to expire prior to the proposed felling timeline of this proposal and one has not yet been approved by Scottish Forestry.

**Table 13.2 – Forestry by Property**

Plantation	Area (Ha)	Percentage of Total (%)
Brownhill Total	89.68	3.78
Cockplay Total	91.03	3.84
Dod Knowe Total	276.31	11.65
Dryfehead Total	127.82	5.39
Dundoran Total	127.08	5.36
Ewelairs Total	153.78	6.48
Kirkhill Total	108.77	4.59
Laverhay Total	80.12	3.38
Priestgillhead Total	235.65	9.94
Ramshawrig Total	270.11	11.39
Ruegill Total	123.48	5.21
Silton Total	687.59	29.00
<b>Grand Total</b>	<b>2371.41</b>	<b>100.00</b>

#### Existing Species Composition

13.5.7 The majority of the commercial forestry is typically made up of Sitka Spruce (83%), Norwegian Spruce, Japanese Larch and Hybrid Larch. A more detailed breakdown of the forestry species within the development area can be found in Figure 13.2 and Table 13.3.

**Table 13.3 – Forestry Species**

Species	Area (ha)	Percentage of Total (%)
Douglas Fir Total	0.20	0.01
Hybrid Larch Total	34.87	1.47
Japanese Larch Total	34.14	1.44
Japanese Larch /Scots Pine Total	1.16	0.05
Larch Total	7.60	0.32
Lodgepole Pine Total	17.07	0.72
Maritime Pine Total	0.35	0.01
Mixed Broadleaves Total	112.47	4.74

Mixed Broadleaves / Open Ground Total	36.90	1.56
Mixed Conifer Total	13.42	0.57
Noble fir Total	1.09	0.05
Norwegian Spruce Total	45.52	1.92
Norwegian Spruce /Douglas Fir Total	0.26	0.01
Norwegian Spruce /Hybrid Larch Total	0.83	0.04
Norwegian Spruce /Japanese Larch Total	1.14	0.05
Norwegian Spruce /Scots Pine Total	2.72	0.11
Serbian Spruce Total	1.39	0.06
Yunnan Pine Total	9.49	0.40
Scots Pine Total	4.84	0.20
Sitka Spruce Total	1972.07	83.16
Sitka Spruce /Douglas Fir Total	0.49	0.02
Sitka Spruce /Hybrid Larch Total	41.10	1.73
Sitka Spruce /Japanese Larch Total	31.49	1.33
Sitka Spruce /Open Ground Total	0.51	0.02
Sycamore Total	0.28	0.01
<b>Grand Total</b>	<b>2371.41</b>	<b>100.00</b>

Existing Forestry and Felling Plan

- 13.5.8 The Forestry Management Companies for Silton and Scoop Hill Forestry have provided CWL with the existing felling plans which are currently available.
- 13.5.9 In addition, the forestry plans and felling phases are viewable on the Scottish Forestry Map Viewer for Ramshaw Rig, Brownhill, Ewelairs and Laverhay and these have been utilised in this assessment on forestry.
- 13.5.10 Scottish Forestry also advised at scoping and after Gatecheck 1, that the assessment should also take into account the LTFP's (either agreed or in the final stage of approval) for Dod Knowes, Cockplay, Dryfehead, Priestgillhead, Fingland Fell and Dundoran. These have not been provided by the forestry management companies for the following reasons;
- The forestry management plan for Dod Knowes expired in 2016 and therefore provides no relevant information in this assessment;
  - The forestry management plans for Cockplay, Ramshaw rig and Dryfehead expire in 2022 (two years prior to any proposed felling works), and provides no information relevant to this assessment;
  - Fingland Fell has been removed from the development; and
  - The proposed LTFP for Priestgillhead has not been provided to Community Windpower by the forest managers as it is understood to be in the final stages of approval.

13.5.11 The remaining commercial plantations of Dundoran, Ruegill and Kirk Hill currently have no LTFP's. This assessment therefore only takes into consideration those LTFP's which exist, are relevant and have been provided.

13.5.12 Felling is organised into phases 1 and 2. The years within each felling phase are as follows;

- Phase 1: 2020 – 2024; and
- Phase 2: 2025 – 2029.

13.5.13 If planning consent is granted for Scoop Hill Community Wind Farm, then it is envisaged that the proposed felling for the development would be expected to begin in 2024, thereby falling into Phase 1 of the Scottish Forestry timeline.

13.5.14 Table 13.4 and Figure 13.4 illustrate the current felling plans for the development area.

**Table 13.4 – Forestry Existing Long Term Forestry Plan**

LTFP Phase	Area (ha)	Percentage of Total (%)
2020-24 Total	275.23	11.61
2025-29 Total	19.62	0.83
NO LTFP	2076.56	87.57
<b>Grand Total</b>	<b>2371.41</b>	<b>100</b>

Forestry Yield Class

13.5.15 Yield class data has been provided for all of the commercial forestry in the development area.

13.5.16 Yield class is an index which has been created to provide a means of classifying the productivity of trees within a plantation. Yield class is based on a maximum mean annual increment of cumulative timber volume. Each yield class is unique to each species, but provides a guide to the quality of plantations.

13.5.17 Yield class varies from 2 to 22, but 75% of all forestry on site is classed 14 to 18. The mean yield class for the species, Sitka spruce (which makes up over 83% of the total combined tree species found within the development site) is 14 across the UK (Bateman & Lovett, 2005).

13.5.18 With more than 65% of all forestry attaining a yield class of 16 or over, this would indicate that the forestry onsite at the Development Site, has a slightly higher than average productivity. Table 13.5 and Figure 13.5 details the baseline yield class.

**Table 13.5 – Forestry Yield Class**

Yield Class	Area (ha)	Percentage of Total (%)
0 Total	19.92	0.84
2 Total	1.27	0.05
4 Total	47.88	2.02
6 Total	109.81	4.63

8 Total	25.53	1.08
10 Total	71.72	3.02
12 Total	118.40	4.99
14 Total	341.44	14.40
16 Total	1017.17	42.89
18 Total	430.84	18.17
20 Total	182.70	7.70
22 Total	4.73	0.20
<b>Grand Total</b>	<b>2371.41</b>	<b>100.00</b>

#### Forestry Planting Years

- 13.5.19 The planting of forestry across Scoop Hill has occurred since 1900 with some native species. Extensive commercial forestry practices however first began in 1956.
- 13.5.20 Much of the current commercial forestry within the development site has been planted since 1980, with phased restocking and felling occurring over a 30-50 year cycle. 75% of the current forestry was planted between 1980 and 2009.

**Table 13.6 – Forestry Planting Years/Decades**

Decade of Planting	Area of Baseline(ha)	Percentage of Baseline (%)
1970 Total	141.92	5.99
1980 Total	646.46	27.26
1990 Total	562.98	23.74
2000 Total	558.24	23.54
2010 Total	443.55	18.70
2020 Total	18.25	0.77
<b>Grand Total</b>	<b>2371.41</b>	<b>100.00</b>

### 13.6 Proposed Forest Activity

- 13.6.1 As part of the Scoop Hill Community Wind Farm, 47 turbines of the 75 turbines proposed, will be located within the 12 commercial forestry properties outlined in Figure 13.2. It will be necessary to carry out key-hole felling of commercial forestry prior to the construction of the wind farm in order to accommodate the wind turbines and associated infrastructure.
- 13.6.2 Some of this felling will occur prior to existing planned felling dates, agreed with Scottish Forestry. Many plantations within the development either have no LTFP or LTFP's which are to expire.

13.6.3 It should be noted that a majority of the proposed felling areas are approaching their planned harvesting date and resultantly, it will be economically viable to remove these trees at the time of development/prior to construction of the wind farm.

13.6.4 The proposed forestry activities will be undertaken in conjunction with the current forestry plans which meet the requirements of Scottish Forestry, The UK Forestry Standard and the UK Woodland Assurance Standard.

#### Required Tree Felling

13.6.5 Air that passes directly above the forest canopy often causes instability in its flow, causing a reduction in the efficiency of turbines. However, by utilising a larger turbine, the impact of this turbulence is reduced significantly, thereby removing the need to clear fell.

13.6.6 Instead, a key-hole method of felling can be applied. This involves a single phase of permanent felling during the initial construction of the wind farm. This acts as a key-hole of open ground around the base of the turbines within forests and surrounding existing forestry operations can continue unimpeded.

13.6.7 The key-hole felling area is dependent on the construction requirements and a minimum safe distance for bats from the edge of the forestry/tops of trees to the blade tip.

13.6.8 In accordance with guidance published by NatureScot (and other key stakeholders, in a joint venture), the tree felling surrounding turbines follows the minimum safe distances found within the 'Buffers' guidance in section 7.1.2 of the '*Bats and Onshore Wind Turbines: Survey, Assessment and Mitigation Version: January 2019*'. Based on the height of the forestry (maximum 50m trees) and the candidate turbine specification, the minimum distance from forestry areas should be 112m for a 180m tip turbine, 100m for a 200m tip turbine and 75m for a 225m turbine. Larger 250m tip turbines require no minimum safe distance based on the formula in the guidance.

13.6.9 The required minimum key-hole felling which will be applied at Scoop Hill involves an 85m felling radius surrounding each crane hardstand and turbine located within the forestry. Based on the proposed layout for Scoop Hill, the key-hole felling radius for the different sized turbines at will be as follows:

- 112m radius for a 180m tip turbine;
- 100m radius for a 200m tip turbine; and
- 85m radius for a 225m or 250m tip turbine.

13.6.10 This allows for a safe working area for the installation and erection of the turbines, which will remain permanently cleared of forestry for the entirety of the operational life of the wind farm and the buffer distances for bats as referred to in 13.6.8.

13.6.11 In addition, a typical felling corridor of 15m will be utilised for access tracks. The corridor allows for some degree of flexibility, where straight sections of access track require no felling and other sections may require additional felling on the outside of access track bends, to account for the over sail of turbine blades.

13.6.12 The total felling area required for the Scoop Hill Community Wind Farm is 293ha. This is 12% of the total forestry within the development area.

13.6.13 Of the 293ha of proposed felling, 35ha is due to be felled within the same timeframe as part of the forestry management and LTFPs already in place, and this will take place regardless of the wind farm. Therefore, the total amount of key-hole felling required to facilitate the wind farm is reduced to 258ha.

13.6.14 The tables in Appendix 13.1 to 13.4 detail the felling breakdown in respects of its original baseline and also how it would re-structure the commercial forestry in regard to Species, Plantation, Age and Yield Class.

**Tree Felling Methodology**

13.6.15 Felling will be undertaken in accordance with the relevant Scottish Forestry guidelines. The basic methodology is outlined below:

- Felling will be undertaken utilising purpose-built, specialised forestry harvester equipment. Where required, some motor manual felling or pre-brashing may be undertaken;
- Harvesting equipment will manoeuvre to a position where it can attach on to the tree to be felled with the harvesting head;
- Using the saw within the harvesting head, the tree will be severed from the root and allowed to fall to the ground whilst held within the head;
- Using the ‘feed rollers’ within the head, the tree will be passed through the harvesting head where the knives within the head remove the branches. These branches (or brash) will be placed ahead of the harvester to create a brash mat on which the harvester will travel;
- Once the tree is stripped of branches (or during the process), the saw will cut the tree in to specific product lengths controlled by the operator and/or the harvester’s computer; and
- Once all product is cut from the tree, the remaining tip will be placed within the brash mat and the machine will proceed to fell the next tree.

13.6.16 Forestry operations in general will follow the following principles;

- The maximum amount of timber possible will be removed from site to minimise the amount of material to be chipped or mulched;
- Where possible brash will be sold to local bio-mass plants and the use of brash for ecological purposes will be limited, with preference for it to be used for any relevant construction activities, in consultation with SEPA and Scottish Forestry;
- Trees of adequate size and quality will be felled, delimbed and extracted from site by standard forestry harvesting machinery to then be removed from site and sold into conventional timber markets;
- Trees not able to be sold are to be chipped or mulched on site using purpose-built machinery, with mulching/chips spread evenly over the site to expedite the biodegradation process.

13.6.17 The Applicant/CWL will work with the forestry managers to coordinate felling activities during the construction of the wind farm in conjunction with the current felling plan.

13.6.18 Subject to consent, it is assumed that felling for the wind farm infrastructure will commence in 2024 and will take approximately 9 to 12 months to complete, excluding the extraction of all commercial timber to market.

13.6.19 Delays in the commencement date may occur subject to consenting timelines, discharging of planning conditions and the timings for the grid connection.

**13.7 Proposed Forestry Management**

**Forestry Removal**

13.7.1 All of the 293ha of commercial forestry to be felled, to facilitate the construction of the wind farm and erection of the wind turbines, will be permanently felled with no restocking taking place during the operational life of the wind farm. The proposed felling areas are displayed in Figure 13.6.

13.7.2 Felling would take place as close to the existing felling plan where possible. In some instances, the existing felling plan has not been altered by the development. There is however 35ha of the existing phase 1 felling schedule that also forms a part of the felling required for the wind farm. Felling will therefore take place in accordance to Scottish Forestry guidelines and the forestry management practices set out at the start of this Section.

13.7.3 In areas where tree planting has recently taken place, it may be possible that construction can take place without the removal of crop. This would however depend on the current height of saplings and the estimated growth rate of them. This would have to be evaluated on a turbine by turbine basis, post consent, in a forestry management plan.

**Proposed Felling as part of a Long Term Forestry Plan**

13.7.4 In accordance with Scottish Forestry guidelines, a new LTFP has been created to account for proposed forestry management as part of the Scoop Hill Community Wind Farm.

13.7.5 As the existing LTFP’s for a number of plantations will expire in 2022 or have already expired, CWL will work alongside all relevant consultees including Scottish Forestry, landowners and forestry management companies to ensure a LTFP is created for all plantations that will incorporate the felling required for the construction and operation of the wind farm.

13.7.6 As mentioned in 13.6.12, 35ha of the 293ha of proposed felling, will be felled as part of existing programmed forestry operations. The net adjustment to the LTFP in the development boundary is 258ha.

13.7.7 However, for the purpose of this forestry assessment, the total felling area assumes that all plantations will require felling for the existing phase 1 rotation.

13.7.8 Table 13.7 details the proposed changes to the existing LTFP associated with the development. Figure 13.7 shows the proposed new LTFP as a result of the proposed felling requirement.

**Table 13.7 – Proposed Alterations to the Existing LTFP**

Area (ha)	Existing Fell Phase	New Fell Phase
35.17	2020-2024	No Change
2.58	2025-2029	2020-2024
255.29	No Fell Phase	2020-2024

**Forest Waste**

13.7.9 Forest operations have the potential to generate forestry waste and where this occurs, appropriate waste management options require consideration and adoption.

- 13.7.10 It is proposed that key-hole felling practices will minimise the amount of material to be chipped or mulched. All timber fit for market will be extracted, removed from site and sold to the timber market.
- 13.7.11 In terms of the brash, this will be removed from site and provided/sold to local biomass plants. Any brash left on site will be chipped or mulched (on-site) using purpose-built machinery and spread evenly over the site to expedite the biodegradation process. Alternatively, in some areas, brash can be used for brash-mats to help with construction activities. In addition, within the development, large pieces of timber unable to be sold will be used to help improve the biodiversity and ecological productivity on site. It is therefore expected that no forestry materials would be regarded as waste.
- 13.7.12 All felling operations will be carried out in accordance with SEPA guidance on felling and forestry waste and in accordance with Waste Regulations (Scotland) 2017. Further details will be provided within a Forestry Management Plan to be secured via a planning condition and included within the Construction Environmental Management Plan (CEMP), an outline version of which accompanies this application and EIAR.

### 13.8 Potential Effects

- 13.8.1 The potential effects of the wind farm development on forestry are:
- Removal of commercial forest;
  - Disturbance of ground by machinery;
  - Tree debris and mulch remaining on site;
  - Increase in the availability of water to the catchment;
  - Changes in the chemical structure of surface runoff and through flow;
  - Disturbance to forestry flora and fauna;
  - Increased surface runoff and speed of runoff; and
  - Changes in the landscape visual amenity.

### 13.9 Assessment of Effects

- 13.9.1 Minor effects may occur on ecology, hydrology and ornithology as the key-hole felling work is undertaken and timber is transported off site. These potential effects are discussed in the relevant sections below, which don't take into account the mitigation measures which can be deployed which are later detailed in Section 13.10.

#### Ecology

- 13.9.2 On the basis of the field survey work undertaken (see Section 8 of the EIAR), the professional judgement of the ecology team at Starling Learning, experience from other relevant projects and taking account of policy guidance and standards, the following topic areas have been scoped out of the current assessment:
- Conifer plantation;
  - Broad-leaved woodlands; and
  - Pine Marten.
- 13.9.3 Badger activity is very high and due to the very large size and density of the forestry, some setts will have been missed during the surveys. Setts are most likely to be lost due to felling operations within the forest however based on current information, it appears no setts will be lost due to wind farm construction, as none were

located within 100m of any part of the development. Badger setts will move as forest operations take place regardless of the wind farm, as this species adapts to the changing baseline.

- 13.9.4 Red squirrels are present in low numbers. Forestry operations will have an effect on this species and populations will move according to where there are mature trees with sufficient cone crops. Disturbance during construction could be caused by tree removal with potential to destroy dreys.
- 13.9.5 Bats are present across the development area. Tree removal therefore could cause some disturbance and loss of foraging habitats.
- 13.9.6 Otters are present along the watercourses that transect through the forestry plantations. There is potential for indirect impacts as a result of deterioration in water quality due to pollution from felling. There is also the possibility that lie-ups could be damaged as a result of felling operations.

#### Ornithology

- 13.9.7 The proposed key-hole felling would result in a loss of habitat for some ornithological species including goshawk, crossbill, song thrush, mistle thrush, tree pipit and lesser redpoll.
- 13.9.8 The ornithological assessment, which can be found in Section 7, details that due to the high numbers of all species other than Goshawk, and the small quantity of direct habitat loss, the significance is negligible.
- 13.9.9 One of the goshawk nest sites within the development boundary has already been felled and any new nesting has not been recorded.

#### Hydrology

- 13.9.10 The upper Wamphray Water catchment and the majority of the Dryfe Water catchment, except for small sections in the north and south west, consist of forestry in varying stages of maturity. Large sections of forestry in both catchments have also been felled. Areas of mature forestry help to attenuate peak flows due to the inception of precipitation by the closed canopy.
- 13.9.11 Research into the effects on the hydrological regime of catchments suggests that forestry practices can have impacts on peak flows. In areas to be felled, a reduction in forestry cover will lead to a reduction in interception of precipitation and a subsequent increase in runoff and water yield. Key-hole forestry felling will expose soils and the removal of closed canopy will result in reduced levels of interception and transpiration of precipitation. As such, felling has the potential to increase the volume of runoff entering watercourses, with increased soil erosion and sedimentation, although the use of key-hole felling will reduce this compared to clear-felling.
- 13.9.12 As a result of the felling and construction operations, all catchments with new and upgraded infrastructure present are vulnerable to erosion and sedimentation.
- 13.9.13 Tree removal also can increase nitrogen mineralisation and nitrification, which can promote nitrate leaching and enhance acidity in waters draining some soils. The effect can last between two to five years after felling, depending upon the rate at which vegetation re-establishes.
- 13.9.14 In the areas which are to be felled, localised runoff responses have the potential to increase due to the reduction in precipitation being intercepted by the closed canopy forestry. The effects on runoff will be reduced based on the keyhole felling techniques to be used associated with the construction of the Proposed



Development. Felling and extraction would also be planned to minimise the number of drain crossings and reduce any increases in runoff.

13.9.15 Localised increases in runoff could cause issues for downstream flood storage capacity and/or pollution incidents. Increases in the volume of runoff entering watercourses could also cause erosion and sedimentation, therefore having detrimental effects on surface water hydrology.

### Landscape and Visual

13.9.16 Section 6 of the EIAR provides a full Landscape and Visual Impact Assessment.

13.9.17 The removal of forestry on site could cause the following potential impacts on the landscape and visual resource;

- Permanent effects on physical landscape fabric, landscape character, and views;
- Temporary, short-term effects on landscape character; and
- Temporary, short-term effects on views.

13.9.18 Changes in the landscape fabric, landscape character and views can impact the following receptors;

- Physical landscape features;
- Landscape character receptors: landscape character types, landscape designations, wild land areas; and
- Views experienced by different receptors e.g. residents, road users, walkers.

13.9.19 Physical effects are restricted to the area within the proposed development red line site boundary and are the direct effects on the existing fabric of the site, such as the removal of forestry and alteration to ground cover. This category of effects is made up of landscape elements, which are the components of the landscape, such as forestry that may be directly and physically affected by the proposed development.

13.9.20 Coniferous forestry is a predominant landcover across parts of the Scoop Hill Community Wind Farm, particularly the area that is covered by the Southern Uplands with forest LCT. The value of coniferous forestry as a landscape element is medium; it is a widespread and commercially-grown landscape element that is not rare or specifically recognised for its value but it is a characteristic element of this area of the Southern Uplands, as evidenced in the naming of one of the LCTs found on the site.

13.9.21 The combination of the medium susceptibility to change of the landscape element and the medium value of the landscape element results in a medium sensitivity for coniferous forestry.

13.9.22 A total area of 293 ha of forestry will be removed for the construction of the proposed development. This constitutes a relatively small proportion of the overall extent of forestry on the site and its vicinity, and the magnitude of change will be low as it will result in the removal of a small part of this landscape element.

13.9.23 The effect of the proposed development on the landscape element coniferous forestry will be not significant. This is due to a combination of the factors that lead to the medium sensitivity of the landscape element and the low magnitude of change upon it.

13.9.24 The removal of forestry may also have indirect effects on landscape character and views. These effects are described in Section 6 of the EIA Report in relation to each of the relevant landscape and visual receptors.

## 13.10 Mitigation

13.10.1 A summary of mitigation taken, and proposed mitigation is provided below.

### By Design

13.10.2 Throughout the design process, CWL have consulted with both statutory and non-statutory consultees. This has informed the design of the wind farm layout and associated forestry impact.

13.10.3 During the design process of Scoop Hill Community Wind Farm, efforts were made to remove the need for wholesale clear-felling and instead a key-hole felling regime has been adopted. This also included utilising areas of open ground on hilltops to site turbines.

13.10.4 In order to minimise the total amount of felling required for the wind farm, the height of turbines has been increased to reduce the key-hole felling requirement. By utilising the larger turbines, the required felling areas has been reduced by around 15%.

13.10.5 Existing open ground and wind breaks within the commercial forestry areas have been utilised for access tracks and infrastructure. This has also led to a reduction in the quantity of felling required. Further details of the site design and evolution are available in Section 3 of the EIAR.

### Ecology

13.10.6 In order to reduce the potential operational impacts on bats, restock will be a minimum of 50m from turbine blade tips, leaving the remaining forestry a safe distance.

13.10.7 Broad-leaved tree and scrub planting within the cleughs and along watercourses outwith the wind farm area, away from turbine locations will enhance foraging opportunities for bats.

13.10.8 Strict pollution prevention measures will be implemented to ensure no impacts on water quality, which could have indirect impacts on the otter and fish population. These will include standard good practice measures to control silt levels and water monitoring will be carried out.

13.10.9 Enhancement measures for otter will also be implemented, including planting up riparian corridors within the cleughs with species such as willow, alder, ash, hazel, hawthorn and blackthorn to increase cover/refuge opportunities for this species. A number of attenuation ponds will be designed to be wildlife friendly and will be left on site for amphibians thus providing a food source for otters.

13.10.10 A pre-construction check will be made on the site to check existing setts and for any newly excavated setts, which could be impacted by the construction. If identified, a 30m buffer zone will be implemented around any setts to avoid any potential disturbance to badgers inside during the construction process. Disturbance will be avoided during the breeding season (December to June). These buffer zones will be set up by the ECoW on site who will monitor badger use of the site during construction to further assess the disturbance impacts associated with construction and advise construction workers if any changes are necessary.

13.10.11 A pre-construction check will take place where all felling is to take place to check for dreys. To reduce the impact on breeding squirrels, all felling will take place outwith the breeding season. No broad-leaved tree planting will take place within the forest as this may attract grey squirrels.

### Ornithology

- 13.10.12 No felling will take place during the bird breeding season March to August inclusive.
- 13.10.13 Pre-construction surveys will identify any goshawk nests and no work will take place within 1km of the nest during the breeding season. The nest will be monitored by the ECoW who will liaise directly with the Scottish Raptor Study Group.
- 13.10.14 There are very few areas left within the site after recent commercial felling that are suitable for goshawk nests and there is the possibility it may not have another nest for some years. Discussions will take place with forest managers to agree an area where trees can be left to mature past the felling age, in order that they may be used by goshawk in the future.
- 13.10.15 Various bird species including goshawk will be monitored in the year following the completion of the works and again in years two and three.
- 13.10.16 A Species Protection Plan will be written for Crossbill, as requested by NatureScot. This species nests very early in the year, the timing of which is dependent on the cone crop. This may lead to certain areas being unable to be felled from December onwards.
- 13.10.17 Due to the above restrictions, it is likely that the majority of the felling will take place between the months of September and December.

### Hydrology

- 13.10.18 A site-specific CEMP will facilitate the implementation of industry good practice measures in such a manner as to prevent or minimise effects on the surface and groundwater environment. The CEMP will include information that relates to potential effects rising from forestry practices, as summarised below:
- Drainage – all runoff derived from construction activities and site infrastructure will not be allowed to directly enter the natural drainage network. All runoff will be adequately treated via a suitably designed drainage scheme with appropriate sediment and pollution management measures. The Proposed Development is situated in an upland hydrological area and it is imperative that the drainage infrastructure is designed to accommodate storm flows based on a 1 in 200-year event plus climate change to help maintain the existing hydrological regime;
  - Monitoring Plan – all activities undertaken as part of the Proposed Development will be monitored throughout the construction phase to monitor environmental compliance. Water quality monitoring, including PWS, if required, will also occur throughout each phase of the Proposed Development and will help to maximise the effectiveness of embedded mitigation measures whilst monitoring effects on the hydrological environment.
  - Contingency Plans – a site specific Pollution Prevention Plan and Incident Response Plan will be implemented to allow plans to be put in place to manage a spill or other pollution incident. The plans will ensure that emergency equipment is available on site i.e. spill kits and absorbent materials, advice on action to be taken and who should be informed in the event of a pollution incident.
  - Training – All relevant staff personnel will be trained in both normal operating and emergency procedures and be made aware of highly sensitive areas on site.
- 13.10.19 The drainage systems installed within the proposed development will also have sediment management measures incorporated into their design to help reduce or wholly mitigate effects on the hydrological environment. The type of sediment management will depend on the volume of construction activities

occurring in particular areas within the Proposed Development. For all of the suggested control measures, regular inspection and maintenance is necessary, particularly after prolonged heavy rainfall.

- 13.10.20 Silt traps will be installed within the proposed development drainage system. Silt traps could take the form of terram fences or clean stone, however, the ability of the silt traps to successfully treat runoff will be dependent upon the permeability of the terram geotextile material and the size and source of the clean stone.
- 13.10.21 The ability of the silt traps to effectively treat runoff will depend upon the volume of runoff within the drainage channel, the type of material used and the frequency of monitoring and replacement of the measures.
- 13.10.22 The filling of trenches with fresh brash could accentuate the effect by promoting leaching (acidification) below the rooting zone
- 13.10.23 Further details of the on-site drainage works are available in Section 10 of the EIAR and the outline CEMP which accompanies this application.

### Landscape and Visual

- 13.10.24 The commercial forestry on site will be keyhole felled, reducing the visual impact of forestry removal. Whilst the keyhole areas will not be restocked during the operational life of the wind farm, there will be off-site compensatory planting as part of the scheme to replace the felled areas.
- 13.10.25 Forestry removal is limited to keyholing and minor felling for infrastructure features, and this key landscape characteristic will largely be retained.
- 13.10.26 Some construction operations and infrastructure elements such as access track construction and upgrading, borrow pits and compounds are characteristic of the baseline character due to forestry operations in this landscape.

### Restocking

- 13.10.27 The construction of the proposed development will involve a keyhole felling method, in which the only forestry which will be felled is that which is required around the wind turbines and wind turbine infrastructure. This has reduced the requirement for felling compared to the clear fell method, however no replanting would be carried out on the areas to be felled for the proposed development's permanent infrastructure. As a result, the 293 ha which requires to be felled for the development will be replaced through compensatory planting as detailed in the following points.

### Compensatory Planting

- 13.10.28 In accordance with the *Scottish Government Policy on Control of Woodland Removal*, the Applicant recognise the requirement to compensate for woodland that is felled and not restocked for the proposed development.
- 13.10.29 Compensatory planting is proposed both on and off site to replace the forestry permanently removed during the construction of the wind farm. Where possible native woodland is proposed to be planted on site, as recommend in the habitat management plan.
- 13.10.30 The proposed compensatory planting will equate to that of the forestry which is removed to accommodate the wind farm, a total of 293 Ha. This includes 3ha of native planting and 290ha of commercial forestry species.

### On-Site Compensatory Planting

13.10.31 As part of the proposed outline habitat management plan there will be approximately 35ha of native riparian woodland replanting, which can be seen in figure 13.8. This provides significant ecological enhancement to the area and will offset large quantities of carbon dioxide over the 40 years of the development and beyond.

### Off-Site Compensatory Planting

13.10.32 The Applicant/CWL have identified an appropriate location which would be able to provide compensatory planting for the entirety of the proposed felling. Further details would be confirmed in a Compensatory Planting Management Plan, post consent condition.

### **During the Construction of the Wind Farm**

13.10.33 Potential damage to soils during the harvesting operation will be mitigated on-site by:

- Use of brash mats along harvesting and extraction routes;
- Fitting of band tracks to machinery in difficult working conditions;
- Stopping operations during periods of extremely wet weather; and
- Avoiding watercourses and drains.

13.10.34 The Applicant will work with forestry managers to arrange the felling of the compartments necessary for the development, as well as the amendment to current felling and restocking plans to account for the wind farm development.

### **Operation of the Wind Farm**

13.10.35 Once the wind farm is operational there will be minimal disruption to the day-to-day management activities of the plantations. The areas felled as part of the temporary forest removal will be restocked as part of the amended felling and restocking plan.

13.10.36 The Applicant will continue to work with the forestry managers to ensure the forestry plans are adhered to in order to minimise the impact of the wind farm. The remaining forestry compartments will be accessible by the upgraded tracks constructed for the delivery of the turbines.

### **Decommissioning of the Wind Farm**

13.10.37 Following decommissioning of the wind farm, the commercial forestry compensatory areas will be maintained to the standards current at that time of forest design set out by Scottish Forestry.

13.10.38 The keyhole felled areas will likely be replanted by the forestry management companies in the next round of felling/re-stocking. This would ultimately lead to a net gain of commercial forestry for the region, as the off-site commercial forestry is also likely to be felled and then re-stocked.

13.10.39 Throughout the stages of development, the Applicant will work in parallel with the forestry management plans and will include measures to minimise the impact on the surrounding environment to ensure disruption to habitats and watercourses are kept to a minimum.

### **Climate Change and Carbon Sequestration**

13.10.40 The removal of trees on-site to accommodate the wind turbines and infrastructure has an associated carbon cost. Using the Scottish Government's *Wind Farm Carbon Assessment Tool* as outlined in Section 2 of this EIAR, the required tree felling for the development would result in carbon dioxide emissions of approximately 154,705 tonnes of carbon dioxide (CO<sub>2</sub>).

13.10.41 The proposed compensatory planting for the Scoop Hill Community Wind Farm will offset the felling emissions by establishing a new carbon sequestration store. CWL propose to compensate for all of the commercial forestry felled at both onsite and off-site locations, whereas native mixed broadleaved species will be planted on site.

13.10.42 Using the provided Woodland Carbon Code (WCC) Carbon Calculation Spreadsheet (Version 2.0 March 2018) and the WCC Carbon Lookup Tables (Version 2.0 March 2018) the carbon sequestration of compensatory planting has been calculated.

13.10.43 The 41 ha of onsite compensatory planting to establish alternative areas of woodland in accordance with the Policy on Control of Woodland Removal will comprise predominately of Mixed Broadleaves (Assumed SAB).

13.10.44 Taking the figures provided by the Forestry Commission 41ha of Mixed Broadleaved plantation, with an average yield class of 8 and planting separation distance of 2.5 m, could potentially sequester 28,272 tonnes of CO<sub>2</sub> over the 40-year operational lifetime of the wind farm.

13.10.45 These areas of woodland would continue to sequester carbon after wind farm decommissioning. The planted native oak woodland could, for example, potentially sequester 38,171 tonnes of CO<sub>2</sub> over 100 years.

### **13.11 Statement of Residual Significance**

13.11.1 It is predicted that the presence of the proposed Scoop Hill Community Wind Farm will have minimal residual adverse impact on the forestry operations within the development area. Given that 35ha is approaching its proposed felling period and that a number of plantations will have to develop new LTFP, the felling proposed to accommodate the wind farm forms only a small part of the established LTFP's and will be accommodated in future plans.

13.11.2 There will be a loss of 293ha of commercial forestry within the development boundary, for the 40 year operational life of the wind farm, however due to the compensatory planting and the proposed planting as part of the HMP, this quantity of forestry and woodland will be replaced and there will be not net loss of trees.

13.11.3 After the 40-year operation of the wind farm and two year decommissioning period, much of the 293ha will be available for replanting.

13.11.4 Furthermore, the development of the outline Habitat Management Plan and 41ha of native broadleaved planting, will bring with it potential for improving the local biodiversity and improving habitats for a number of at-risk species. There is a strong likelihood that compensatory planting will have positive impacts on ecology and biodiversity.

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### Appendix 13.1 – Felling by Forestry Species

Species	Area of Baseline(ha)	Area of Felled(ha)	Percentage of Plantation to be Felled (%)	New Baseline (%)
Douglas Fir Total	0.20	0.05	24.65	0.01
Hybrid Larch Total	34.87	0.51	1.46	1.65
Japanese Larch Total	34.14	2.74	8.02	1.51
Japanese Larch /Scots PineTotal	1.16	0.43	36.93	0.04
Larch Total	7.60	0.00	0.00	0.37
Lodgepole Pine Total	17.07	1.41	8.25	0.75
Maritime Pine Total	0.35	0.35	100.00	0.00
Mixed Broadleaves Total	112.47	2.05	1.82	5.31
Mixed Broadleaves / Open Ground Total	36.90	0.69	1.87	1.74
Mixed Conifer Total	13.42	0.57	4.23	0.62
Noble fir Total	1.09	0.00	0.00	0.05
Norwegian SpruceTotal	45.52	10.21	22.42	1.70
Norwegian Spruce /Douglas FirTotal	0.26	0.00	0.00	0.01
Norwegian Spruce /Hybrid Larch Total	0.83	0.51	60.70	0.02
Norwegian Spruce /Japanese Larch Total	1.14	0.30	26.36	0.04
Norwegian Spruce /Scots PineTotal	2.72	0.34	12.69	0.11
Serbian Spruce Total	1.39	0.00	0.00	0.07
Yunnan Pine Total	9.49	0.00	0.00	0.46
Scots PineTotal	4.84	0.00	0.00	0.23
Sitka Spruce Total	1972.07	272.54	13.82	81.77
Sitka Spruce /Douglas Fir Total	0.49	0.00	0.00	0.02
Sitka Spruce /Hybrid Larch Total	41.10	0.00	0.00	1.98
Sitka Spruce /Japanese Larch Total	31.49	0.00	0.00	1.52
Sitka Spruce /Open Ground Total	0.51	0.35	68.22	0.01
Sycamore Total	0.28	0.00	0.00	0.01
<b>Grand Total</b>	<b>2371.41</b>	<b>293.04</b>	<b>12.36</b>	<b>100.00</b>

Appendix 13.2 – Felling by Forestry Property

Plantation	Area of Baseline(ha)	Area of Felled(ha)	Percentage of Plantation to be Felled (%)	New Baseline (%)
Brownhill Total	89.68	6.43	7.17	4.01
Cockplay Total	91.03	11.77	12.93	3.81
Dod Knowe Total	276.31	41.21	14.91	11.31
Dryfehead Total	127.82	16.68	13.05	5.35
Dundoran Total	127.08	16.62	13.08	5.31
Ewelairs Total	153.78	12.17	7.91	6.81
Kirkhill Total	108.77	12.56	11.54	4.63
Laverhay Total	80.12	8.88	11.09	3.43
Priestgillhead Total	235.65	26.77	11.36	10.05
Ramshawrig Total	270.11	35.46	13.13	11.29
Ruegill Total	123.48	20.91	16.94	4.94
Silton Total	687.59	83.59	12.16	29.06
Grand Total	2371.41	293.04	12.36	100.00

Appendix 13.3 – Felling by Planting Decade

Decade of Planting	Area of Baseline(ha)	Area of Felled(ha)	Percentage of Plantation to be Felled (%)	New Baseline (%)
1900 Total	6.78	0.00	0.00	0.33
1950 Total	11.36	0.00	0.00	0.55
1960 Total	15.34	1.22	7.98	0.68
1970 Total	108.44	13.04	12.02	4.59
1980 Total	646.46	70.90	10.97	27.69
1990 Total	562.98	65.38	11.61	23.94
2000 Total	558.24	67.95	12.17	23.59
2010 Total	443.55	73.76	16.63	17.79
2020 Total	18.25	0.79	4.31	0.84
Grand Total	2371.41	293.04	12.36	100.00

Appendix 13.4 – Felling by Yield Class

Year of Planting	Area of Baseline(ha)	Area of Felled(ha)	Percentage of Plantation to be Felled (%)	New Baseline (%)
0 Total	19.92	1.50	7.55	0.89
2 Total	1.27	0.13	10.28	0.05
4 Total	47.88	0.32	0.67	2.29
6 Total	109.81	4.33	3.94	5.08
8 Total	25.53	1.22	4.80	1.17
10 Total	71.72	14.55	20.29	2.75
12 Total	118.40	15.17	12.81	4.97
14 Total	341.44	55.55	16.27	13.76
16 Total	1017.17	145.06	14.26	41.96
18 Total	430.84	29.49	6.84	19.31
20 Total	182.70	25.71	14.07	7.55
22 Total	4.73	0.00	0.00	0.23
Grand Total	2371.41	293.04	12.36	100.00



**Appendix 13.5 – Forest Compartment Schedules (Simplified)**

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Brownhill	12	1986	HL	2.66
T2020-24	Brownhill	12	1986	JL	6.34
	Brownhill	0	1986	MB	0.95
T2020-24	Brownhill	16	1986	NS	4.85
	Brownhill	14	1986	SS	10.64
T2025-29	Brownhill	20	1986	SS	19.62
	Brownhill	18	1986	SS	27.42
T2020-24	Brownhill	16	1986	SS	9.70
T2020-24	Brownhill	18	1986	SS	3.78
T2020-24	Brownhill	20	1986	SS/JL	3.72
	Cockplay	10	1971	JL	0.14
	Cockplay	10	1971	JL	0.09
	Cockplay	4	2004	MB	0.46
	Cockplay	4	2008	MB	2.28
	Cockplay	4	2008	MB	0.32
	Cockplay	4	2008	MB	0.13
	Cockplay	4	2008	MB	0.72
	Cockplay	4	2008	MB	1.04
	Cockplay	4	2004	MB	0.84
	Cockplay	0	1971	MB	0.20
	Cockplay	6	1971	MB	0.10
	Cockplay	0	1971	MB/OG	0.76
	Cockplay	6	2012	MB/OG	0.40
	Cockplay	6	2012	MB/OG	0.69
	Cockplay	6	2012	MB/OG	0.23
	Cockplay	14	2013	NS	4.23
	Cockplay	14	2016	NS	3.37
	Cockplay	18	1971	SS	0.14
	Cockplay	18	1972	SS	0.36
	Cockplay	18	1972	SS	0.39

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Cockplay	18	2008	SS	12.81
	Cockplay	16	2004	SS	9.19
	Cockplay	16	2004	SS	4.33
	Cockplay	16	2008	SS	2.46
	Cockplay	18	1971	SS	1.00
	Cockplay	10	1971	SS	0.54
	Cockplay	16	2012	SS	5.19
	Cockplay	16	2012	SS	10.66
	Cockplay	16	2013	SS	4.33
	Cockplay	16	2013	SS	8.24
	Cockplay	16	2016	SS	9.00
	Cockplay	16	2016	SS	1.07
	Cockplay	16	2008	SS/JL	3.03
	Cockplay	16	2008	SS/JL	0.20
	Cockplay	16	2004	SS/JL	2.10
	Dod Knowe	12	2005	HL	7.48
	Dod Knowe	8	2014	MAP	0.35
	Dod Knowe	4	2004	MB	0.41
	Dod Knowe	4	2009	MB	1.70
	Dod Knowe	4	2009	MB	0.23
	Dod Knowe	6	2005	MB	0.20
	Dod Knowe	6	2007	MB	0.66
	Dod Knowe	6	2007	MB	0.57
	Dod Knowe	6	2007	MB	0.17
	Dod Knowe	6	2007	MB	0.22
	Dod Knowe	6	2007	MB	0.79
	Dod Knowe	4	2000	MB	1.30
	Dod Knowe	4	2000	MB	0.82
	Dod Knowe	4	2009	MB	0.02
	Dod Knowe	4	2009	MB	0.25
	Dod Knowe	4	2009	MB	0.23

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Dod Knowe	4	2009	MB	0.28
	Dod Knowe	4	2009	MB	0.44
	Dod Knowe	4	2005	MB	0.20
	Dod Knowe	6	2005	MB	0.24
	Dod Knowe	4	2005	MB	1.20
	Dod Knowe	4	2005	MB	0.18
	Dod Knowe	6	2001	MB	0.16
	Dod Knowe	6	2001	MB	0.41
	Dod Knowe	6	2001	MB	0.65
	Dod Knowe	6	2005	MB	0.25
	Dod Knowe	6	2013	MB	0.39
	Dod Knowe	6	2013	MB	0.12
	Dod Knowe	6	2013	MB	0.09
	Dod Knowe	6	2013	MB	0.28
	Dod Knowe	4	2000	MB/OG	0.70
	Dod Knowe	6	2003	MB/OG	1.14
	Dod Knowe	6	2003	MB/OG	0.65
	Dod Knowe	6	2003	MB/OG	1.19
	Dod Knowe	6	2003	MB/OG	5.25
	Dod Knowe	4	2000	MB/OG	2.23
	Dod Knowe	4	2000	MB/OG	0.52
	Dod Knowe	6	2003	MB/OG	0.01
	Dod Knowe	14	2001	MC	0.16
	Dod Knowe	14	2001	MC	0.77
	Dod Knowe	12	2014	NS	0.83
	Dod Knowe	12	2005	NS/SP	0.45
	Dod Knowe	12	2005	SP	1.43
	Dod Knowe	16	2004	SS	10.66
	Dod Knowe	16	2005	SS	8.45
	Dod Knowe	14	2007	SS	14.23
	Dod Knowe	16	2003	SS	13.41

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Dod Knowe	18	2001	SS	17.01
	Dod Knowe	14	2007	SS	19.93
	Dod Knowe	18	1969	SS	0.27
	Dod Knowe	16	1971	SS	2.62
	Dod Knowe	18	2010	SS	3.42
	Dod Knowe	18	2000	SS	16.72
	Dod Knowe	16	2009	SS	19.00
	Dod Knowe	18	2009	SS	8.10
	Dod Knowe	16	1969	SS	0.20
	Dod Knowe	18	2009	SS	17.26
	Dod Knowe	14	2005	SS	2.94
	Dod Knowe	14	2007	SS	7.08
	Dod Knowe	14	2007	SS	7.06
	Dod Knowe	16	2010	SS	5.61
	Dod Knowe	18	2010	SS	1.78
	Dod Knowe	16	1971	SS	0.32
	Dod Knowe	16	1971	SS	1.65
	Dod Knowe	20	2013	SS	4.53
	Dod Knowe	16	2013	SS	7.84
	Dod Knowe	12	2013	SS	1.80
	Dod Knowe	16	1972	SS	0.64
	Dod Knowe	18	2013	SS	4.07
	Dod Knowe	12	2013	SS	4.88
	Dod Knowe	16	2005	SS	8.24
	Dod Knowe	16	2003	SS/HL	1.56
	Dod Knowe	16	2003	SS/HL	9.40
	Dod Knowe	16	2003	SS/HL	13.16
	Dod Knowe	12	2009	SS/HL	4.55
	Dod Knowe	6	2007	SS/HL	0.59
	Dod Knowe	16	2010	SS/HL	1.70
	Dryfehead	8	1971	JL	0.38

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Dryfehead	6	2014	MB	1.44
	Dryfehead	4	2005	MB/OG	2.66
	Dryfehead	4	2005	MB/OG	1.14
	Dryfehead	4	2003	MB/OG	0.87
	Dryfehead	4	2006	MB/OG	0.90
	Dryfehead	6	2006	MB/OG	0.41
	Dryfehead	6	2011	MB/OG	0.85
	Dryfehead	6	2011	MB/OG	0.38
	Dryfehead	6	2011	MB/OG	2.09
	Dryfehead	16	2014	NS	0.71
	Dryfehead	12	2011	NS/HL	0.18
	Dryfehead	12	2011	NS/HL	0.18
	Dryfehead	12	2011	NS/HL	0.37
	Dryfehead	12	2011	NS/HL	0.10
	Dryfehead	12	2009	NS/JL	0.24
	Dryfehead	12	2009	NS/JL	0.45
	Dryfehead	12	2009	NS/JL	0.45
	Dryfehead	14	2009	SS	11.94
	Dryfehead	20	2003	SS	7.10
	Dryfehead	16	2006	SS	4.98
	Dryfehead	16	2006	SS	11.57
	Dryfehead	18	2005	SS	0.70
	Dryfehead	18	2005	SS	5.81
	Dryfehead	16	2005	SS	5.43
	Dryfehead	16	2005	SS	8.06
	Dryfehead	16	1969	SS	0.06
	Dryfehead	16	1969	SS	0.07
	Dryfehead	16	1969	SS	0.13
	Dryfehead	8	1971	SS	0.13
	Dryfehead	18	1970	SS	0.22
	Dryfehead	8	1971	SS	0.31

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Dryfehead	16	1971	SS	0.20
	Dryfehead	16	1971	SS	0.07
	Dryfehead	8	1971	SS	1.55
	Dryfehead	12	2011	SS	1.51
	Dryfehead	16	2011	SS	3.67
	Dryfehead	16	2011	SS	4.82
	Dryfehead	16	2011	SS	1.68
	Dryfehead	12	2014	SS	4.92
	Dryfehead	16	2014	SS	9.02
	Dryfehead	16	2011	SS	3.15
	Dryfehead	16	2011	SS	2.15
	Dryfehead	16	2011	SS	0.41
	Dryfehead	16	2011	SS	4.22
	Dryfehead	14	2011	SS	1.01
	Dryfehead	14	2011	SS	0.09
	Dryfehead	12	2011	SS	1.08
	Dryfehead	12	2011	SS	0.43
	Dryfehead	14	2011	SS	1.15
	Dryfehead	16	2011	SS	2.34
	Dryfehead	16	2011	SS	3.90
	Dryfehead	14	2011	SS/HL	3.91
	Dryfehead	12	2011	SS/HL	4.75
	Dryfehead	14	2011	SS/HL	1.48
	Dundoran	12	1991	HL	2.37
	Dundoran	12	1990	HL	0.08
	Dundoran	10	1975	HL	3.15
	Dundoran	12	1991	HL	1.52
	Dundoran	10	1991	HL	1.19
	Dundoran	10	1990	HL	2.91
	Dundoran	10	1990	HL	1.22
	Dundoran	10	1990	HL	1.16

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Dundoran	10	2003	HL	0.51
	Dundoran	10	2003	HL	0.19
	Dundoran	10	1991	HL	1.16
	Dundoran	10	1991	HL	1.06
	Dundoran	10	1956	HL	2.09
	Dundoran	10	1956	HL	2.47
	Dundoran	10	1959	HL	1.52
	Dundoran	10	1971	HL	1.02
	Dundoran	12	1974	HL	0.98
	Dundoran	10	1956	HL	0.13
	Dundoran	0	1990	MB	0.89
	Dundoran	4	1971	MB	0.16
	Dundoran	4	1971	MB	0.16
	Dundoran	4	1990	MB	0.97
	Dundoran	4	1990	MB	1.17
	Dundoran	4	1900	MB	0.44
	Dundoran	4	1900	MB	0.47
	Dundoran	12	1974	NS	1.35
	Dundoran	10	1975	NS	1.19
	Dundoran	14	1974	NS	0.16
	Dundoran	18	1958	NS	3.65
	Dundoran	10	1975	NS	1.19
	Dundoran	10	1975	NS	2.23
	Dundoran	0	1971	PYU	4.29
	Dundoran	0	1971	PYU	5.20
	Dundoran	8	1956	SP	0.54
	Dundoran	8	1971	SP	0.56
	Dundoran	18	1974	SS	3.18
	Dundoran	14	1991	SS	2.42
	Dundoran	14	1983	SS	1.74
	Dundoran	14	1982	SS	2.57

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Dundoran	16	1991	SS	0.47
	Dundoran	18	1975	SS	4.54
	Dundoran	16	1983	SS	4.52
	Dundoran	22	2003	SS	4.73
	Dundoran	18	1991	SS	1.13
	Dundoran	16	1991	SS	4.17
	Dundoran	16	1991	SS	5.66
	Dundoran	12	1991	SS	2.50
	Dundoran	18	1991	SS	3.36
	Dundoran	18	1975	SS	0.44
	Dundoran	18	1969	SS	2.67
	Dundoran	18	1990	SS	0.20
	Dundoran	18	1975	SS	0.97
	Dundoran	18	1975	SS	0.68
	Dundoran	18	1975	SS	0.45
	Dundoran	0	2008	SS	5.68
	Dundoran	16	1990	SS	3.32
	Dundoran	18	1991	SS	4.67
	Dundoran	16	1990	SS	2.02
	Dundoran	18	1990	SS	0.67
	Dundoran	18	2003	SS	0.94
	Dundoran	18	2003	SS	0.63
	Dundoran	18	1956	SS	0.70
	Dundoran	18	1970	SS	0.26
	Dundoran	18	1970	SS	0.51
	Dundoran	18	1970	SS	0.35
	Dundoran	18	1970	SS	0.19
	Dundoran	18	1995	SS	2.76
	Dundoran	18	1959	SS	0.26
	Dundoran	16	1991	SS	3.69
	Dundoran	18	1983	SS	3.66

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Dundoran	16	1991	SS	1.05
	Ewelairs	10	1980	LAR	0.07
T2020-24	Ewelairs	10	1980	LAR	2.11
T2020-24	Ewelairs	10	1980	LAR	0.14
	Ewelairs	10	1980	LAR	0.01
T2020-24	Ewelairs	10	1980	LAR	0.05
T2020-24	Ewelairs	10	1980	LAR	0.11
T2020-24	Ewelairs	10	1980	LAR	0.06
T2020-24	Ewelairs	10	1980	LAR	0.02
T2020-24	Ewelairs	10	1980	LAR	3.81
T2020-24	Ewelairs	10	1980	LAR	1.22
	Ewelairs	16	1983	SS	20.54
	Ewelairs	16	1982	SS	24.25
	Ewelairs	20	1980	SS	12.57
T2020-24	Ewelairs	20	1980	SS	20.32
	Ewelairs	12	1983	SS	0.38
	Ewelairs	12	1983	SS	0.64
	Ewelairs	8	1983	SS	1.08
	Ewelairs	8	1983	SS	1.08
	Ewelairs	12	1983	SS	0.23
	Ewelairs	14	1983	SS	2.26
	Ewelairs	6	1982	SS	3.02
	Ewelairs	6	1982	SS	0.62
	Ewelairs	6	1982	SS	0.56
	Ewelairs	12	1982	SS	3.32
	Ewelairs	14	1982	SS	1.96
	Ewelairs	14	1982	SS	0.31
	Ewelairs	6	1982	SS	0.12
	Ewelairs	6	1982	SS	0.09
	Ewelairs	6	1982	SS	1.04
	Ewelairs	6	1982	SS	0.23

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Ewelairs	20	1980	SS	0.31
	Ewelairs	20	1980	SS	1.81
	Ewelairs	20	1980	SS	0.38
	Ewelairs	18	1980	SS	0.05
	Ewelairs	20	1980	SS	0.21
	Ewelairs	20	1980	SS	0.07
	Ewelairs	20	1980	SS	0.05
	Ewelairs	20	1980	SS	0.02
	Ewelairs	14	1980	SS	0.97
	Ewelairs	20	1980	SS	0.22
T2020-24	Ewelairs	20	1980	SS	3.26
T2020-24	Ewelairs	20	1980	SS	6.11
T2020-24	Ewelairs	14	1980	SS	0.11
T2020-24	Ewelairs	20	1980	SS	1.19
T2020-24	Ewelairs	20	1980	SS	0.96
	Ewelairs	20	1980	SS	0.06
T2020-24	Ewelairs	20	1980	SS	0.04
T2020-24	Ewelairs	8	1980	SS	0.23
T2020-24	Ewelairs	8	1980	SS	0.88
T2020-24	Ewelairs	8	1980	SS	0.65
T2020-24	Ewelairs	16	1980	SS	1.67
T2020-24	Ewelairs	20	1980	SS	0.28
T2020-24	Ewelairs	8	1980	SS	0.46
T2020-24	Ewelairs	14	1980	SS	1.19
	Ewelairs	14	1980	SS	24.28
	Ewelairs	14	1980	SS	0.18
	Ewelairs	6	1980	SS	0.08
	Ewelairs	6	1980	SS	0.09
	Ewelairs	6	1980	SS	0.39
	Ewelairs	6	1980	SS	0.27
	Ewelairs	10	1980	SS	3.17

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Ewelairs	16	1983	SS	0.03
	Ewelairs	12	1983	SS	0.41
	Ewelairs	6	1982	SS	0.00
	Ewelairs	20	1980	SS	0.72
T2020-24	Ewelairs	20	1980	SS/DF	0.49
T2020-24	Ewelairs	20	1980	SS/JL	0.29
	Kirkhill	12	1986	DF	0.20
	Kirkhill	10	1986	JL	0.55
	Kirkhill	4	1986	MB	1.41
	Kirkhill	10	1986	NS	8.42
	Kirkhill	16	1986	SS	4.85
	Kirkhill	16	1986	SS	10.06
	Kirkhill	16	1986	SS	16.09
	Kirkhill	16	1986	SS	9.81
	Kirkhill	16	1986	SS	11.19
	Kirkhill	16	1986	SS	17.89
	Kirkhill	16	1986	SS	4.24
	Kirkhill	16	1986	SS	13.45
	Kirkhill	16	1986	SS	3.46
	Kirkhill	16	1986	SS	1.15
	Kirkhill	16	1986	SS	2.35
	Kirkhill	16	1986	SS	1.52
	Kirkhill	16	1986	SS	0.80
	Kirkhill	16	1986	SS	1.32
	Laverhay	10	1987	JL	0.44
	Laverhay	10	1987	JL	0.09
	Laverhay	10	1987	JL	0.09
	Laverhay	10	1987	JL	0.16
	Laverhay	4	1988	MB	0.21
	Laverhay	8	1988	MB	2.93
	Laverhay	8	1988	MB	2.71

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Laverhay	12	1987	SS	1.81
	Laverhay	18	1987	SS	3.98
	Laverhay	14	1987	SS	0.12
	Laverhay	14	1987	SS	9.51
	Laverhay	14	1987	SS	0.46
	Laverhay	16	1987	SS	0.31
	Laverhay	14	1987	SS	1.77
	Laverhay	10	1987	SS	0.03
	Laverhay	18	1987	SS	3.21
	Laverhay	10	1987	SS	0.21
	Laverhay	10	1987	SS	0.16
	Laverhay	16	1987	SS	3.48
	Laverhay	10	1987	SS	0.08
	Laverhay	12	1987	SS	0.39
	Laverhay	16	1987	SS	3.33
	Laverhay	10	1987	SS	0.09
	Laverhay	12	1987	SS	0.11
	Laverhay	16	1987	SS	6.79
	Laverhay	10	1987	SS	0.07
	Laverhay	10	1987	SS	0.31
	Laverhay	10	1987	SS	0.05
	Laverhay	10	1987	SS	0.14
	Laverhay	14	1987	SS	1.13
	Laverhay	10	1987	SS	0.17
	Laverhay	14	1987	SS	1.34
	Laverhay	14	1987	SS	0.23
	Laverhay	14	1987	SS	0.24
	Laverhay	12	1987	SS	0.08
	Laverhay	12	1987	SS	3.82
	Laverhay	14	1987	SS	5.65
	Laverhay	16	1987	SS	0.37

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Laverhay	14	1987	SS	0.17
	Laverhay	14	1987	SS	0.52
	Laverhay	18	1987	SS	0.40
	Laverhay	14	1987	SS	0.76
	Laverhay	16	1987	SS	0.20
	Laverhay	16	1987	SS	0.07
	Laverhay	14	1987	SS	5.89
	Laverhay	18	1987	SS	2.67
	Laverhay	12	1987	SS	0.11
	Laverhay	14	1987	SS	8.08
	Laverhay	18	1987	SS	0.41
	Laverhay	18	1987	SS	0.64
	Laverhay	12	1987	SS	0.23
	Laverhay	18	1987	SS	2.57
	Laverhay	12	1987	SS	0.40
	Laverhay	12	1987	SS	0.09
	Laverhay	12	1987	SS/JL	0.34
	Laverhay	12	1987	SS/OG	0.27
	Laverhay	12	1987	SS/OG	0.06
	Laverhay	12	1987	SS/OG	0.18
	Priestgillhead	16	1981	JL	0.10
	Priestgillhead	8	1981	JL	0.62
	Priestgillhead	8	1981	JL	1.15
	Priestgillhead	8	1981	JL	0.12
	Priestgillhead	8	1981	JL	0.19
	Priestgillhead	12	1980	JL	5.47
	Priestgillhead	10	1980	JL	0.19
	Priestgillhead	14	1980	JL	2.74
	Priestgillhead	12	1980	JL	0.86
	Priestgillhead	8	1982	JL	0.17
	Priestgillhead	6	1980	JL	0.62

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Priestgillhead	6	1980	JL	0.07
	Priestgillhead	6	1980	JL	0.14
	Priestgillhead	6	1981	MB	0.07
	Priestgillhead	4	1981	MB	0.22
	Priestgillhead	4	1980	MB	0.40
	Priestgillhead	6	1981	MB	0.09
	Priestgillhead	4	1982	MB	0.42
	Priestgillhead	4	1981	MB	1.36
	Priestgillhead	4	1981	MB/OG	0.56
	Priestgillhead	0	1981	MB/OG	1.35
	Priestgillhead	0	1981	MB/OG	0.28
	Priestgillhead	0	1981	MB/OG	0.32
	Priestgillhead	12	1983	MC	0.02
T2020-24	Priestgillhead	10	1982	NS	0.33
	Priestgillhead	16	1982	NS	1.03
	Priestgillhead	16	1982	NS/DF	0.26
	Priestgillhead	20	1982	SS	0.59
	Priestgillhead	20	1981	SS	0.15
	Priestgillhead	16	1980	SS	2.91
	Priestgillhead	16	1981	SS	6.15
	Priestgillhead	16	1980	SS	1.56
	Priestgillhead	16	1980	SS	0.59
	Priestgillhead	14	1980	SS	0.21
	Priestgillhead	18	1980	SS	5.19
	Priestgillhead	16	1980	SS	0.13
	Priestgillhead	16	1980	SS	0.11
	Priestgillhead	16	1980	SS	0.47
	Priestgillhead	18	1983	SS	0.02
	Priestgillhead	16	1980	SS	0.24
	Priestgillhead	14	1980	SS	0.44
	Priestgillhead	16	1981	SS	0.28

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Priestgillhead	14	1981	SS	0.31
	Priestgillhead	8	1982	SS	0.18
	Priestgillhead	16	1979	SS	2.36
	Priestgillhead	10	1980	SS	2.14
	Priestgillhead	10	1983	SS	1.00
	Priestgillhead	6	1983	SS	2.13
	Priestgillhead	6	1983	SS	0.53
	Priestgillhead	8	1983	SS	3.06
	Priestgillhead	6	1983	SS	0.30
	Priestgillhead	10	1982	SS	0.29
	Priestgillhead	8	1982	SS	0.90
	Priestgillhead	12	1982	SS	3.58
	Priestgillhead	12	1982	SS	1.54
	Priestgillhead	14	1979	SS	0.70
	Priestgillhead	14	1980	SS	0.23
	Priestgillhead	14	1980	SS	1.10
	Priestgillhead	14	1980	SS	1.32
	Priestgillhead	14	1980	SS	1.05
	Priestgillhead	10	1981	SS	6.52
	Priestgillhead	14	1980	SS	7.25
	Priestgillhead	16	1979	SS	9.19
	Priestgillhead	12	1979	SS	0.17
	Priestgillhead	12	1979	SS	1.38
	Priestgillhead	14	1979	SS	8.24
	Priestgillhead	14	1981	SS	5.54
	Priestgillhead	8	1982	SS	0.78
	Priestgillhead	8	1981	SS	0.54
	Priestgillhead	8	1981	SS	0.04
	Priestgillhead	8	1981	SS	0.21
	Priestgillhead	8	1981	SS	0.16
	Priestgillhead	10	1982	SS	3.64

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Priestgillhead	8	1982	SS	0.40
	Priestgillhead	12	1979	SS	0.17
	Priestgillhead	8	1980	SS	0.12
	Priestgillhead	8	1980	SS	0.33
	Priestgillhead	12	1980	SS	0.53
	Priestgillhead	18	1981	SS	0.21
	Priestgillhead	20	1979	SS	0.15
	Priestgillhead	18	1981	SS	0.45
	Priestgillhead	18	1981	SS	0.61
	Priestgillhead	20	1979	SS	0.30
	Priestgillhead	20	1979	SS	2.49
	Priestgillhead	18	1981	SS	0.37
	Priestgillhead	18	1981	SS	0.09
	Priestgillhead	20	1981	SS	2.62
	Priestgillhead	20	1981	SS	0.13
	Priestgillhead	18	1981	SS	1.73
	Priestgillhead	18	1979	SS	0.13
	Priestgillhead	14	1981	SS	15.28
	Priestgillhead	14	1979	SS	2.34
	Priestgillhead	16	1979	SS	5.36
	Priestgillhead	12	1981	SS	1.68
	Priestgillhead	10	1981	SS	2.51
	Priestgillhead	14	1981	SS	2.81
	Priestgillhead	16	1981	SS	8.77
	Priestgillhead	18	1981	SS	0.54
	Priestgillhead	20	1981	SS	6.41
	Priestgillhead	20	1980	SS	2.26
	Priestgillhead	14	1979	SS	1.14
	Priestgillhead	12	1981	SS	0.08
T2020-24	Priestgillhead	16	1980	SS	0.17
	Priestgillhead	16	1980	SS	0.05



Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Priestgillhead	16	1980	SS	0.06
T2020-24	Priestgillhead	16	1980	SS	0.07
	Priestgillhead	16	1980	SS	0.05
	Priestgillhead	16	1980	SS	0.03
	Priestgillhead	16	1980	SS	0.02
	Priestgillhead	16	1980	SS	0.03
	Priestgillhead	20	1980	SS	0.24
	Priestgillhead	16	1980	SS	1.40
	Priestgillhead	18	1980	SS	1.20
	Priestgillhead	16	1979	SS	2.44
	Priestgillhead	18	1981	SS	0.28
	Priestgillhead	18	1981	SS	0.11
	Priestgillhead	16	1979	SS	0.02
	Priestgillhead	20	1982	SS	0.11
	Priestgillhead	18	1980	SS	22.95
	Priestgillhead	20	1982	SS	3.76
	Priestgillhead	16	1982	SS	1.01
	Priestgillhead	14	1980	SS	0.44
	Priestgillhead	16	1980	SS	1.76
	Priestgillhead	18	1980	SS	1.70
	Priestgillhead	16	1980	SS	0.92
	Priestgillhead	18	1980	SS	0.04
	Priestgillhead	14	1980	SS	1.72
	Priestgillhead	14	1980	SS	0.50
	Priestgillhead	16	1980	SS	2.38
	Priestgillhead	16	1980	SS	1.39
	Priestgillhead	16	1980	SS	0.15
	Priestgillhead	10	1980	SS	5.37
	Priestgillhead	8	1980	SS/JL	0.71
	Priestgillhead	16	1980	SS/JL	0.08
	Priestgillhead	18	1981	SS/JL	18.26

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Priestgillhead	16	1981	SS/JL	0.57
	Priestgillhead	6	1980	SS/JL	0.78
	Priestgillhead	6	1981	SY	0.28
	Ramshawrig	12	1970	LP	1.12
	Ramshawrig	4	2006	MB	0.35
	Ramshawrig	4	2006	MB	0.19
	Ramshawrig	4	2000	MB	2.44
	Ramshawrig	4	2000	MB	0.49
	Ramshawrig	6	2005	MB	11.12
	Ramshawrig	6	2005	MB	4.19
	Ramshawrig	4	2007	MB	0.41
	Ramshawrig	4	2007	MB	0.63
	Ramshawrig	4	2007	MB	0.96
	Ramshawrig	6	2003	MB	2.11
	Ramshawrig	6	2010	MB	0.11
T2020-24	Ramshawrig	6	2013	MB	0.12
T2020-24	Ramshawrig	4	2019	MB	1.05
T2020-24	Ramshawrig	2	2019	MB	0.19
T2020-24	Ramshawrig	2	2019	MB	1.08
	Ramshawrig	6	2003	MB/OG	0.53
	Ramshawrig	6	2003	MB/OG	0.17
	Ramshawrig	6	2003	MB/OG	0.09
	Ramshawrig	16	1970	MC	2.87
	Ramshawrig	16	1970	MC	2.47
	Ramshawrig	12	1969	NS	1.37
	Ramshawrig	14	2013	NS	0.81
T2020-24	Ramshawrig	12	2013	NS	5.26
	Ramshawrig	16	2015	NS	1.46
	Ramshawrig	16	2015	NS	0.63
	Ramshawrig	12	2012	NS/SP	0.84
T2020-24	Ramshawrig	10	2019	OMS	1.39

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
T2020-24	Ramshawrig	16	2019	SS	12.64
T2020-24	Ramshawrig	16	2013	SS	6.01
T2020-24	Ramshawrig	16	2018	SS	9.48
	Ramshawrig	16	2000	SS	8.91
	Ramshawrig	20	2015	SS	13.84
	Ramshawrig	14	1970	SS	0.29
	Ramshawrig	16	2007	SS	8.65
	Ramshawrig	16	2007	SS	7.51
	Ramshawrig	16	2003	SS	7.37
	Ramshawrig	16	2003	SS	2.87
	Ramshawrig	16	2003	SS	6.70
	Ramshawrig	18	2010	SS	11.52
	Ramshawrig	18	2010	SS	5.13
	Ramshawrig	16	2006	SS	4.85
	Ramshawrig	16	2006	SS	5.75
	Ramshawrig	14	2010	SS	9.21
	Ramshawrig	12	2011	SS	11.48
	Ramshawrig	10	1970	SS	0.20
	Ramshawrig	14	2011	SS	1.23
	Ramshawrig	14	2011	SS	13.26
	Ramshawrig	14	2011	SS	3.23
	Ramshawrig	12	2011	SS	2.98
	Ramshawrig	12	2011	SS	0.70
	Ramshawrig	14	2011	SS	11.38
	Ramshawrig	14	2011	SS	2.90
	Ramshawrig	14	2012	SS	12.47
	Ramshawrig	16	1970	SS	0.42
T2020-24	Ramshawrig	16	2013	SS	0.24
T2020-24	Ramshawrig	14	2013	SS	1.69
	Ramshawrig	20	2015	SS	3.09
	Ramshawrig	20	2017	SS	11.62

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Ramshawrig	20	2017	SS	3.45
	Ramshawrig	20	2017	SS	7.27
	Ramshawrig	14	1980	SS	1.99
	Ramshawrig	18	1980	SS	0.56
	Ramshawrig	20	2017	SS	13.24
T2020-24	Ramshawrig	16	2019	SS	1.55
	Ruegill	6	1969	JL	0.23
	Ruegill	10	2004	JL/SP	1.04
	Ruegill	10	2004	JL/SP	0.13
	Ruegill	4	1969	LP	1.62
	Ruegill	6	1969	LP	2.43
	Ruegill	4	1969	LP	0.12
	Ruegill	6	1969	LP	0.55
	Ruegill	16	1969	LP	1.21
	Ruegill	4	1969	LP	4.03
	Ruegill	8	2007	LP	0.90
	Ruegill	4	2003	MB	0.39
	Ruegill	4	2003	MB	0.22
	Ruegill	4	2003	MB	0.18
	Ruegill	4	2010	MB	0.11
	Ruegill	4	2010	MB	0.12
	Ruegill	4	2010	MB	0.21
	Ruegill	4	2010	MB	0.10
	Ruegill	4	2010	MB	0.05
	Ruegill	4	2003	MB	0.20
	Ruegill	4	2010	MB	1.67
	Ruegill	4	2010	MB	0.27
	Ruegill	4	2010	MB	0.42
	Ruegill	8	2013	MB	0.31
	Ruegill	8	2013	MB	0.20
	Ruegill	8	2013	MB	0.58

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Ruegill	6	2007	MB	1.07
	Ruegill	6	2007	MB	1.66
	Ruegill	4	2004	MB/OG	0.20
	Ruegill	4	2004	MB/OG	0.12
	Ruegill	4	2004	MB/OG	0.09
	Ruegill	4	2004	MB/OG	0.13
	Ruegill	4	2004	MB/OG	0.20
	Ruegill	4	2004	MB/OG	0.28
	Ruegill	4	2003	MB/OG	0.17
	Ruegill	4	2003	MB/OG	0.12
	Ruegill	4	2003	MB/OG	0.15
	Ruegill	4	2003	MB/OG	0.19
	Ruegill	14	1969	NS	0.37
	Ruegill	12	2013	NS/SP	0.29
	Ruegill	14	2007	NS/SP	0.76
	Ruegill	14	2007	NS/SP	0.39
	Ruegill	12	2012	SS	4.53
	Ruegill	18	2012	SS	1.93
	Ruegill	18	2003	SS	18.18
	Ruegill	18	2003	SS	5.11
	Ruegill	16	2007	SS	19.77
	Ruegill	16	2004	SS	20.99
	Ruegill	18	2010	SS	0.13
	Ruegill	18	2010	SS	5.58
	Ruegill	18	2010	SS	2.83
	Ruegill	18	2010	SS	5.26
	Ruegill	16	2007	SS	1.06
	Ruegill	16	2007	SS	4.77
	Ruegill	18	2007	SS	1.63
	Ruegill	18	2007	SS	5.37
	Ruegill	16	2007	SS	2.88

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
T2020-24	Silton	14	1971	JL	0.31
T2020-24	Silton	14	1971	JL	0.16
T2020-24	Silton	14	1971	JL	2.28
T2020-24	Silton	14	1971	JL	0.43
T2020-24	Silton	14	1971	JL	0.25
T2020-24	Silton	14	1971	JL	9.73
	Silton	12	1971	LP	4.73
	Silton	12	1996	LP	0.36
	Silton	6	1996	MB	6.08
	Silton	6	1900	MB	0.00
	Silton	6	1900	MB	1.69
	Silton	6	1900	MB	0.29
	Silton	6	1999	MB	0.02
	Silton	6	1900	MB	0.71
	Silton	6	1900	MB	0.55
	Silton	6	1999	MB	0.05
	Silton	6	1999	MB	0.02
	Silton	6	1999	MB	0.01
	Silton	6	1996	MB	0.08
	Silton	6	1996	MB	0.16
	Silton	6	1996	MB	0.46
	Silton	6	1996	MB	0.12
	Silton	6	1997	MB	0.92
	Silton	6	1997	MB	1.00
	Silton	6	1996	MB	2.57
	Silton	6	1996	MB	2.75
	Silton	6	1999	MB	2.51
	Silton	6	1999	MB	0.21
	Silton	6	1996	MB	0.98
	Silton	6	1996	MB	1.75
	Silton	6	1996	MB	1.97

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Silton	6	1996	MB	0.92
	Silton	6	1996	MB	0.48
	Silton	6	1996	MB	0.35
	Silton	6	1996	MB	1.33
	Silton	6	1996	MB	1.79
	Silton	6	1997	MB	0.25
	Silton	6	1900	MB	0.58
	Silton	6	1997	MB	0.45
	Silton	6	1996	MB	0.10
	Silton	6	1996	MB	0.50
	Silton	6	1997	MB	1.87
	Silton	6	1997	MB	0.57
	Silton	6	1997	MB	0.00
	Silton	6	1996	MB	1.18
	Silton	6	1996	MB	1.56
	Silton	6	1997	MB	4.19
	Silton	6	1996	MB	0.18
	Silton	6	1996	MB	0.52
	Silton	6	1996	MB	0.13
	Silton	6	2015	MB	0.67
	Silton	6	2015	MB	0.18
	Silton	6	2015	MB	0.20
	Silton	6	2015	MB	0.27
	Silton	6	2014	MB	0.35
	Silton	6	2014	MB	0.23
	Silton	6	2014	MB	0.22
	Silton	6	2014	MB	0.13
	Silton	6	2007	MB	0.15
	Silton	6	1900	MB/OG	0.95
	Silton	6	1900	MB/OG	1.09
	Silton	6	2007	MB/OG	0.37

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Silton	6	2007	MB/OG	0.25
	Silton	6	2007	MB/OG	0.19
	Silton	6	2007	MB/OG	0.34
	Silton	6	2007	MB/OG	0.43
	Silton	6	2007	MB/OG	1.42
	Silton	6	2007	MB/OG	0.10
	Silton	6	2015	MB/OG	0.10
	Silton	6	2015	MB/OG	1.75
	Silton	6	2010	MB/OG	1.18
	Silton	6	2015	MB/OG	0.25
	Silton	6	2015	MB/OG	0.08
	Silton	6	2015	MB/OG	0.05
	Silton	6	2015	MB/OG	0.12
	Silton	6	2014	MB/OG	0.22
T2020-24	Silton	14	1971	MC	0.26
T2020-24	Silton	16	1971	MC	0.23
	Silton	14	1997	MC	0.37
	Silton	14	1997	MC	1.37
	Silton	14	1997	MC	2.48
T2020-24	Silton	14	1997	MC	2.30
T2020-24	Silton	16	1971	MC	0.12
	Silton	14	1997	NF	0.41
	Silton	14	1997	NF	0.68
	Silton	14	1997	NS	1.02
	Silton	14	1996	NS	0.34
	Silton	14	2020	NS	0.24
	Silton	16	2014	NS	0.49
	Silton	12	2020	SP	0.05
	Silton	12	2020	SP	0.47
	Silton	12	2020	SP	0.41
	Silton	12	2020	SP	0.76

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Silton	12	2020	SP	0.04
	Silton	12	2020	SP	0.08
	Silton	12	2020	SP	0.38
	Silton	12	2020	SP	0.12
	Silton	16	1996	SS	1.65
	Silton	16	1996	SS	0.39
	Silton	16	1996	SS	0.09
	Silton	16	1996	SS	5.99
	Silton	16	1996	SS	2.03
	Silton	16	1996	SS	3.79
	Silton	16	1996	SS	1.42
	Silton	16	1996	SS	1.64
	Silton	16	1996	SS	0.03
	Silton	16	1996	SS	1.80
	Silton	16	1996	SS	1.08
	Silton	16	1996	SS	1.46
	Silton	16	1996	SS	7.27
	Silton	16	1996	SS	0.16
	Silton	16	1996	SS	2.44
	Silton	16	1996	SS	7.11
	Silton	16	1996	SS	2.29
	Silton	16	1996	SS	2.94
	Silton	16	1996	SS	2.41
	Silton	16	1996	SS	1.48
T2020-24	Silton	16	1996	SS	18.80
	Silton	16	1996	SS	5.59
	Silton	16	1996	SS	4.98
T2020-24	Silton	16	1996	SS	0.09
	Silton	16	1996	SS	4.33
	Silton	16	1996	SS	2.13
	Silton	16	1996	SS	11.99

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Silton	16	1996	SS	6.92
	Silton	16	1996	SS	1.60
	Silton	16	1996	SS	1.14
	Silton	18	1996	SS	0.92
	Silton	18	1996	SS	2.02
	Silton	18	1996	SS	1.24
	Silton	18	1996	SS	1.20
	Silton	18	1996	SS	3.91
	Silton	18	1996	SS	0.11
	Silton	18	1996	SS	1.91
	Silton	18	1996	SS	1.77
	Silton	18	1996	SS	0.22
	Silton	18	1996	SS	1.22
T2020-24	Silton	20	2021	SS	1.25
	Silton	18	1996	SS	3.09
	Silton	16	1997	SS	2.92
	Silton	16	1997	SS	0.28
	Silton	16	1997	SS	4.15
T2020-24	Silton	16	1997	SS	5.00
	Silton	16	1997	SS	0.09
	Silton	16	1997	SS	1.33
	Silton	16	1997	SS	2.06
T2020-24	Silton	16	1997	SS	1.74
	Silton	16	1997	SS	0.36
	Silton	16	1997	SS	0.11
	Silton	18	1997	SS	0.65
T2020-24	Silton	18	1997	SS	2.12
T2020-24	Silton	18	1997	SS	1.41
T2020-24	Silton	18	1997	SS	1.34
T2020-24	Silton	16	1997	SS	3.23
T2020-24	Silton	16	1997	SS	1.83

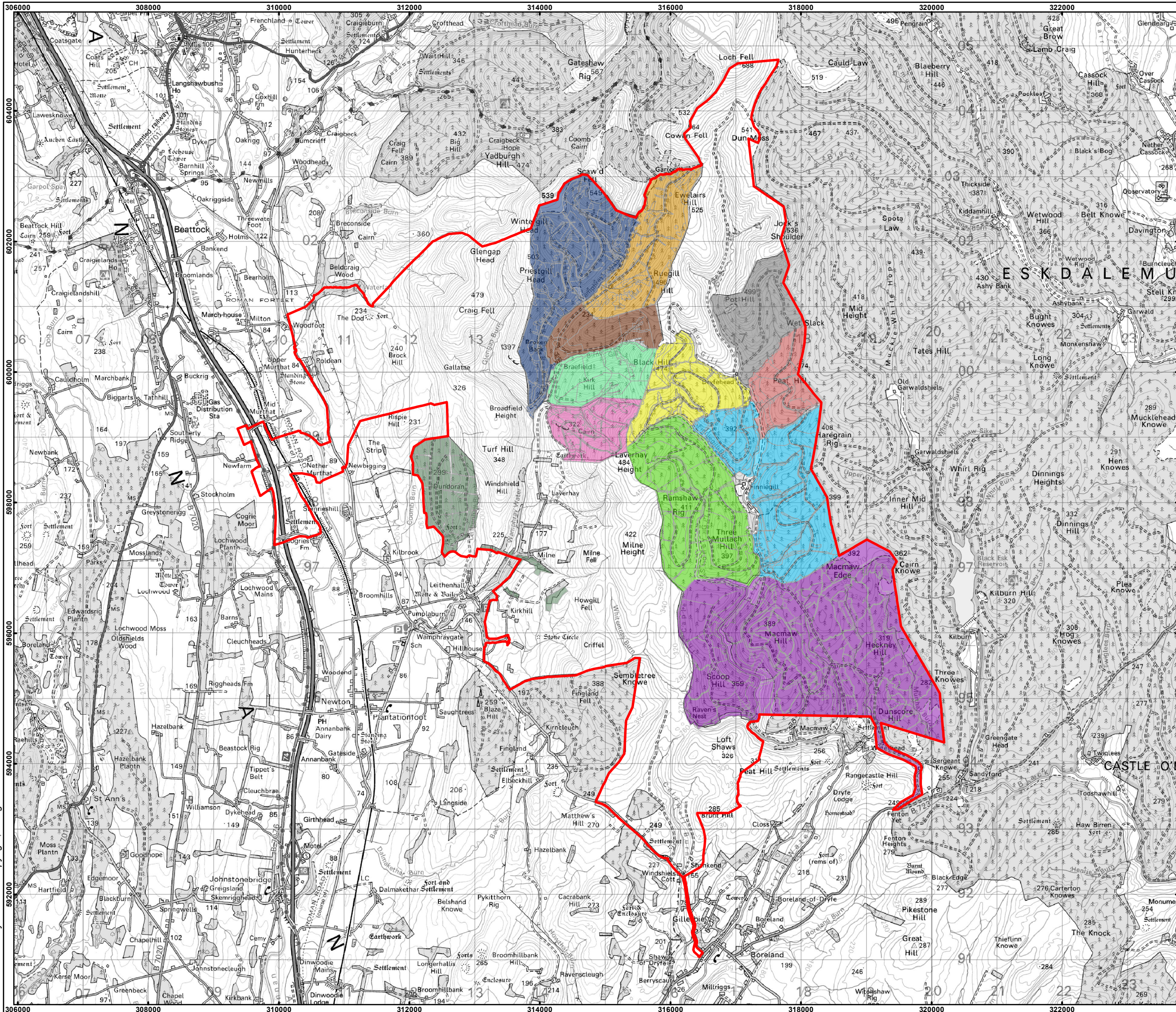
Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
T2020-24	Silton	16	1997	SS	3.72
T2020-24	Silton	16	1997	SS	1.07
	Silton	16	1997	SS	4.08
	Silton	16	1997	SS	0.97
T2020-24	Silton	16	1997	SS	2.44
	Silton	16	1997	SS	0.15
	Silton	16	1997	SS	2.13
	Silton	16	1997	SS	0.03
	Silton	16	1997	SS	0.34
	Silton	16	1997	SS	2.15
	Silton	16	1997	SS	0.15
T2020-24	Silton	18	1997	SS	6.12
T2020-24	Silton	18	1997	SS	4.08
T2020-24	Silton	18	1997	SS	0.86
T2020-24	Silton	18	1997	SS	0.75
T2020-24	Silton	18	1997	SS	12.01
	Silton	18	1997	SS	0.06
	Silton	18	1997	SS	0.45
T2020-24	Silton	16	1997	SS	5.27
	Silton	16	1997	SS	0.20
T2020-24	Silton	16	1997	SS	1.46
T2020-24	Silton	16	1997	SS	6.23
	Silton	16	1997	SS	11.03
	Silton	16	1997	SS	13.11
	Silton	16	1997	SS	1.17
T2020-24	Silton	16	1997	SS	0.04
T2020-24	Silton	16	1997	SS	0.76
T2020-24	Silton	16	1997	SS	0.88
T2020-24	Silton	16	1997	SS	0.03
T2020-24	Silton	16	1997	SS	0.12
T2020-24	Silton	16	1997	SS	0.06

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
T2020-24	Silton	16	1997	SS	0.06
T2020-24	Silton	16	1997	SS	0.07
T2020-24	Silton	16	1997	SS	0.81
T2020-24	Silton	16	1997	SS	1.65
	Silton	18	1971	SS	1.00
T2020-24	Silton	16	1997	SS	2.78
T2020-24	Silton	16	1997	SS	1.16
	Silton	18	1996	SS	1.83
	Silton	18	1996	SS	14.97
T2020-24	Silton	16	1999	SS	0.18
T2020-24	Silton	20	2021	SS	8.33
T2020-24	Silton	20	2021	SS	3.35
	Silton	16	1999	SS	0.24
	Silton	16	1996	SS	0.03
	Silton	16	1999	SS	0.07
T2020-24	Silton	16	1999	SS	0.48
T2020-24	Silton	18	1997	SS	3.48
T2020-24	Silton	16	1997	SS	6.53
T2020-24	Silton	18	1997	SS	2.15
	Silton	16	1997	SS	0.49
	Silton	18	1997	SS	2.20
T2020-24	Silton	16	1997	SS	2.21
	Silton	16	1997	SS	8.45
	Silton	16	1997	SS	0.29
	Silton	14	1996	SS	8.83
	Silton	14	1996	SS	2.57
	Silton	14	1996	SS	3.55
	Silton	14	1996	SS	1.82
	Silton	14	1996	SS	8.50
	Silton	14	1996	SS	9.76
	Silton	14	1996	SS	5.66

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Silton	16	1996	SS	0.22
	Silton	16	1996	SS	3.60
	Silton	16	1996	SS	4.99
	Silton	18	1996	SS	0.69
	Silton	18	1996	SS	1.09
	Silton	18	1996	SS	4.41
	Silton	16	1996	SS	9.91
	Silton	18	1996	SS	6.00
	Silton	16	1996	SS	9.64
	Silton	16	1996	SS	0.84
	Silton	16	1996	SS	7.82
	Silton	16	1996	SS	11.16
T2020-24	Silton	16	1999	SS	0.39
	Silton	18	1996	SS	10.66
	Silton	16	1996	SS	11.15
T2020-24	Silton	16	1996	SS	1.71
T2020-24	Silton	16	1996	SS	1.36
	Silton	16	1996	SS	7.29
T2020-24	Silton	16	1996	SS	10.13
	Silton	16	1997	SS	2.18
	Silton	16	1997	SS	2.58
T2020-24	Silton	16	1997	SS	0.45
T2020-24	Silton	16	1997	SS	1.77
T2020-24	Silton	16	1997	SS	0.67
T2020-24	Silton	16	1997	SS	0.21
T2020-24	Silton	18	1997	SS	6.64
T2020-24	Silton	16	1999	SS	0.47
	Silton	16	1996	SS	1.36
	Silton	16	1996	SS	1.26
	Silton	16	1996	SS	0.95

Fell Phase	Plantation	Yield Class	Planting Year	Species	Area(ha)
	Silton	16	1997	SS	14.83
T2020-24	Silton	20	2021	SS	2.78
	Silton	16	2007	SS	3.25
	Silton	18	2007	SS	11.45
	Silton	20	2007	SS	10.99
	Silton	18	2007	SS	0.65
	Silton	18	2007	SS	15.56
	Silton	18	2007	SS	0.28
	Silton	18	2015	SS	0.78
	Silton	16	2015	SS	8.78
	Silton	16	2015	SS	21.18
	Silton	18	2015	SS	0.33
	Silton	16	2015	SS	0.12
	Silton	16	2015	SS	0.14
	Silton	16	2015	SS	22.64
	Silton	16	2014	SS	13.30
	Silton	18	2014	SS	0.69
	Silton	18	2014	SS	0.10
	Silton	18	2014	SS	4.91
	Silton	18	2014	SS	4.34
	Silton	16	2014	SS	0.21
	Silton	16	2014	SS	5.30
T2020-24	Silton	14	1999	SS/JL	0.03
T2020-24	Silton	14	1999	SS/JL	0.25
T2020-24	Silton	6	1999	SS/JL	0.13
	Silton	14	1999	SS/JL	0.04
T2020-24	Silton	16	1999	SS/JL	0.49
T2020-24	Silton	14	1999	SS/JL	0.49





# 374 Scoop Hill

- Legend**
- Site Boundary
  - Brownhill
  - Cockplay
  - Dod Knowe
  - Dryfehead
  - Dundoran
  - Ewelairs
  - Kirkhill
  - Laverhay
  - Priestgillhead
  - Ramshawrig
  - Ruegill
  - Silton

Notes: N/A  
Revisions: N/A

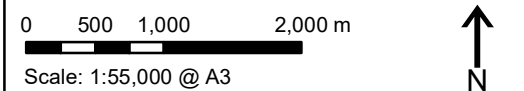


Figure 13.1 Forestry Plantations

Date: 15/04/2020      Ref: 374-200415-7267-A  
Produced: DR      Reviewed: SM      Approved: GC

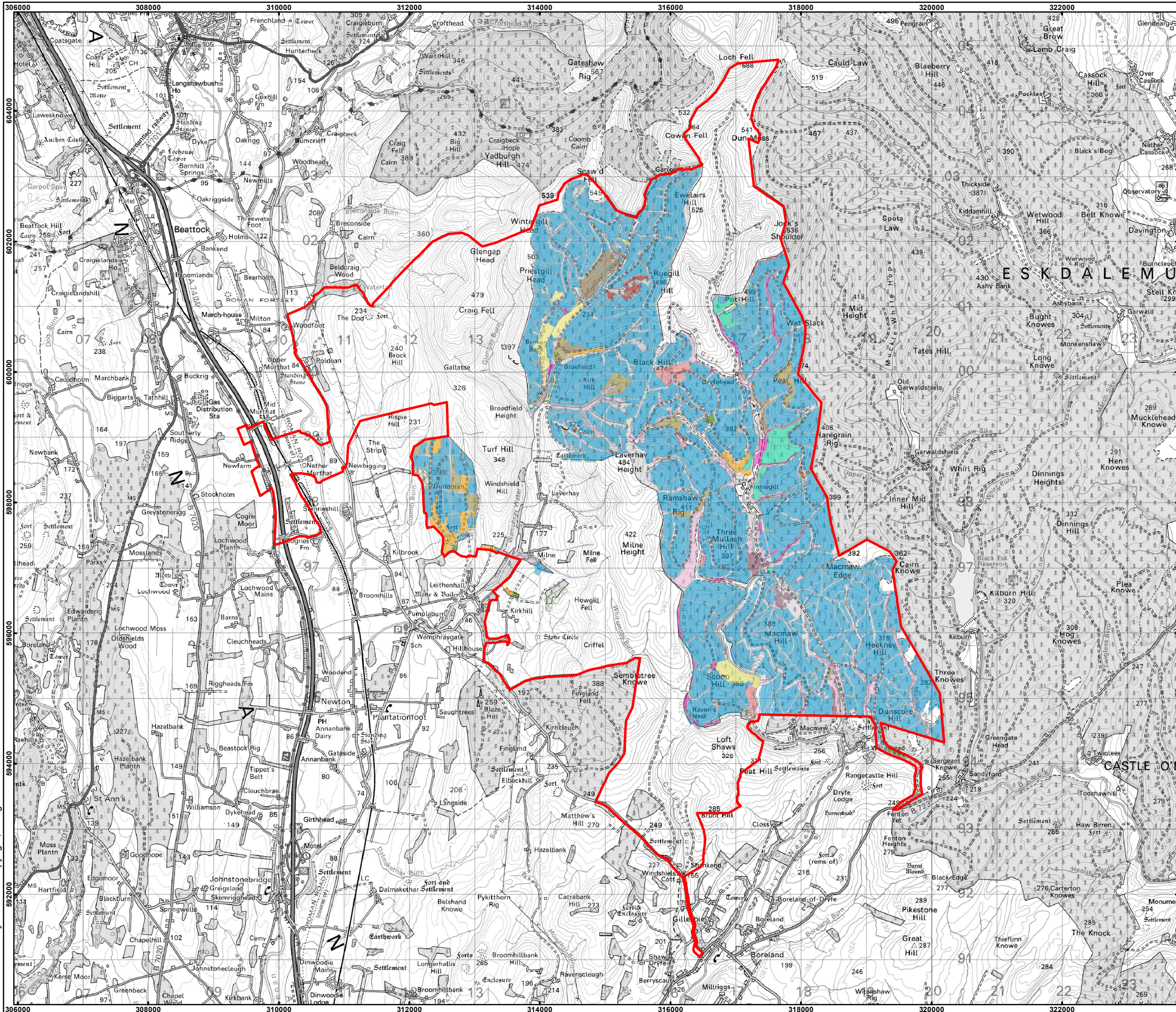


**community  
windpower**

e: [info@communitywindpower.co.uk](mailto:info@communitywindpower.co.uk) w: [www.communitywindpower.co.uk](http://www.communitywindpower.co.uk)

Godscroft Lane  
Frodsham - WA6 6XU  
t: 01928 734544 f: 01928 734790





# 374 Scoop Hill

## Legend

- Site Boundary
- DF
- HL
- JL
- JL/SP
- LAR
- LP
- MAP
- MB
- MB/OG
- MC
- NF
- NS
- NS/DF
- NS/HL
- NS/JL
- NS/SP
- OMS
- PYU
- SP
- SS
- SS/DF
- SS/HL
- SS/JL
- SS/OG
- SY

Notes: N/A  
Revisions: N/A

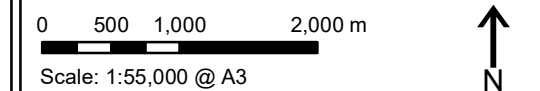
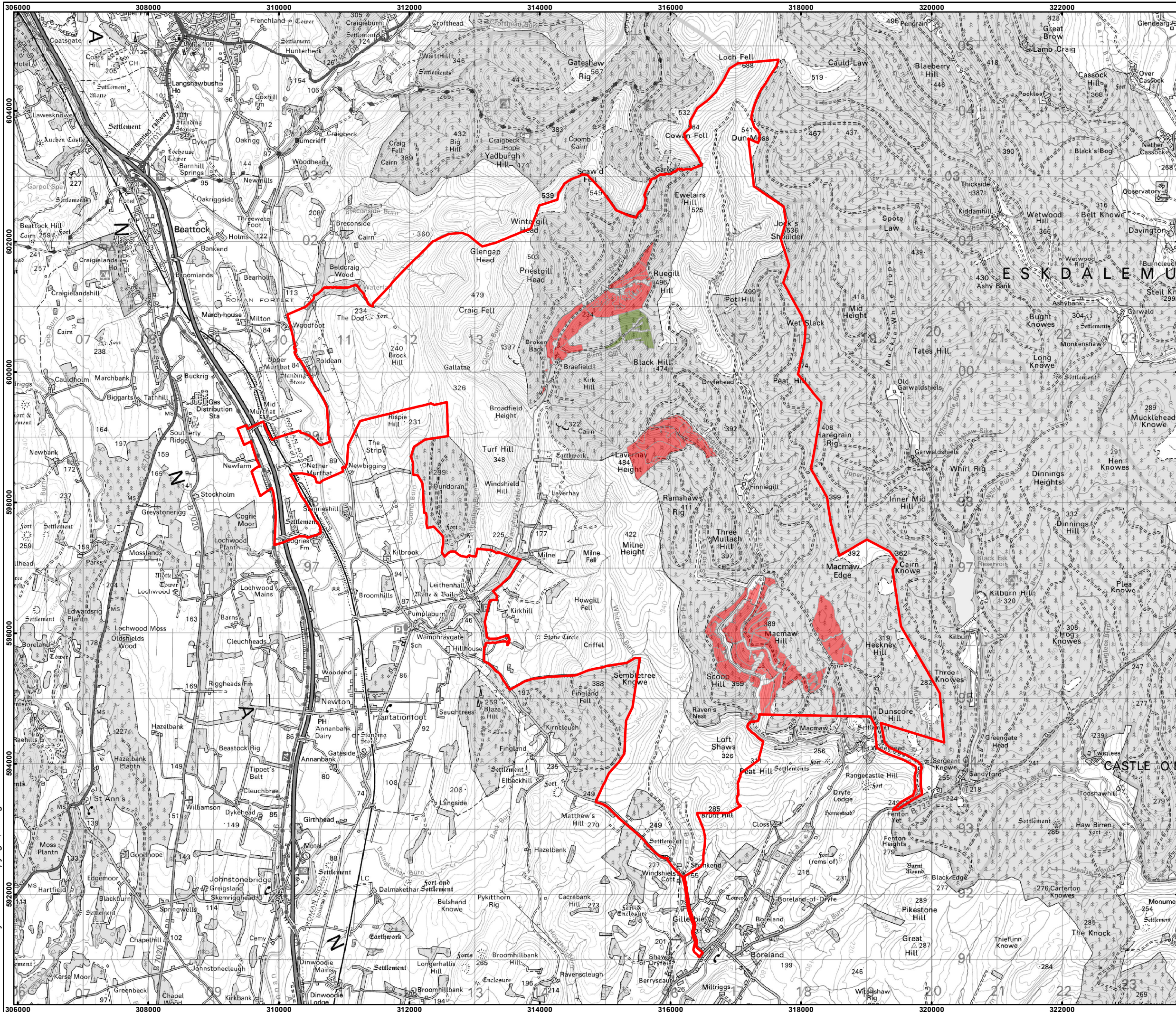


Figure 13.2 – Forestry Species Composition

Date: 15/04/2020 Ref: 374-200415-7268-A  
Produced: DR Reviewed: SM Approved: GC





## 374 Scoop Hill

### Legend

- Site Boundary
- T2020-24
- T2025-29

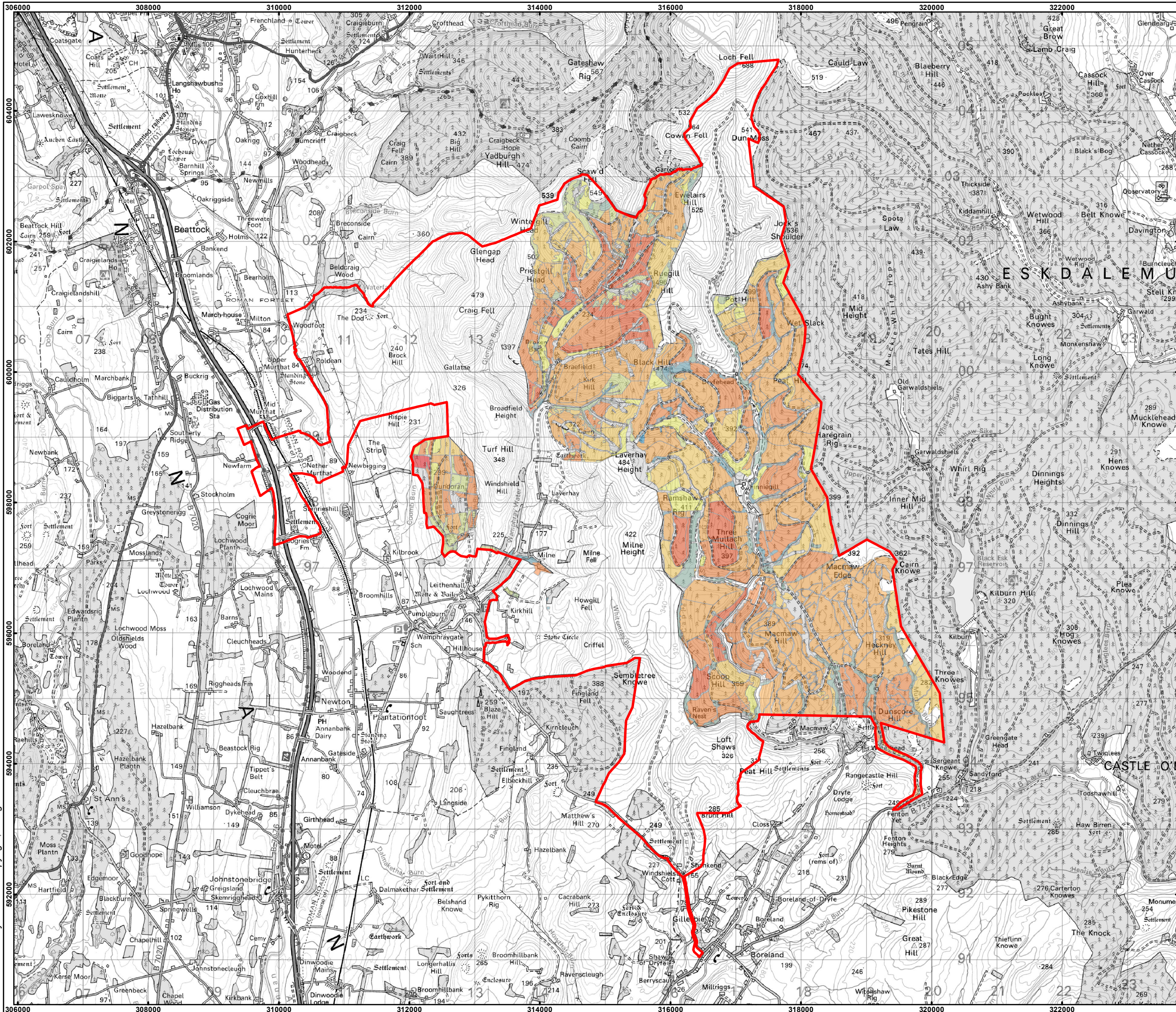
Notes: N/A  
Revisions: N/A



Figure 13.3 – Existing Long Term Forestry Plan, Felling Phases

Date: 15/04/2020 Ref: 374-200415-7271-A  
Produced: DR Reviewed: SM Approved: GC



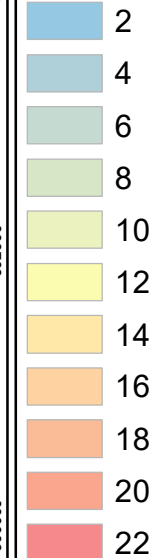


## 374 Scoop Hill

### Legend

  Site Boundary

### Yield Class



Notes: N/A  
Revisions: N/A

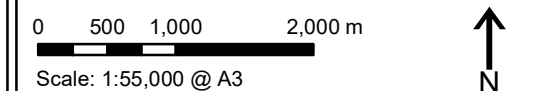
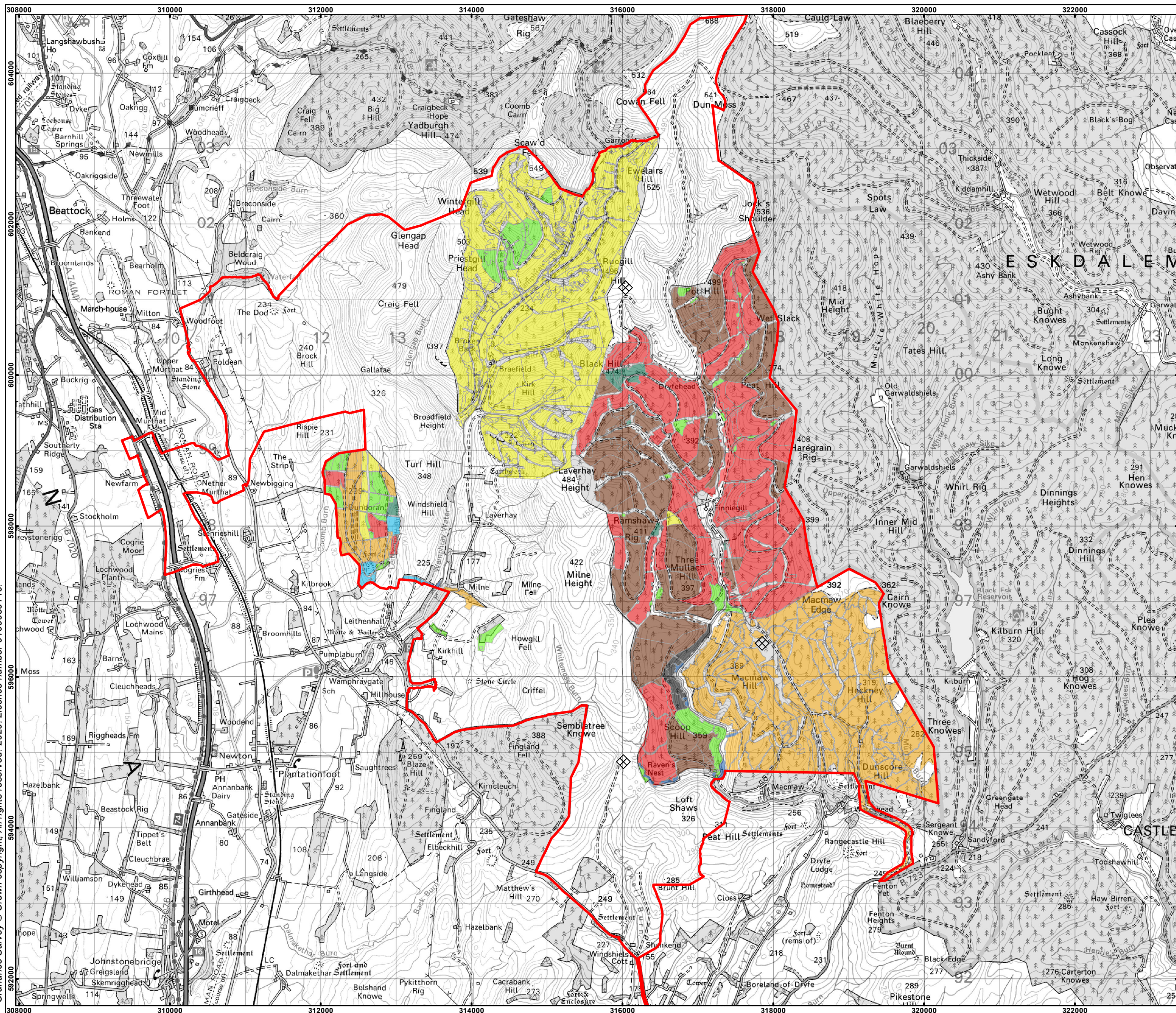


Figure 13.4 – Yield Class

Date: 15/04/2020 Ref: 374-200415-7270-A  
Produced: DR Reviewed: SM Approved: GC





## 374 Scoop Hill

### Legend

Site Boundary

### Planting Decade

- 1900
- 1950
- 1960
- 1970
- 1980
- 1990
- 2000
- 2010
- 2020

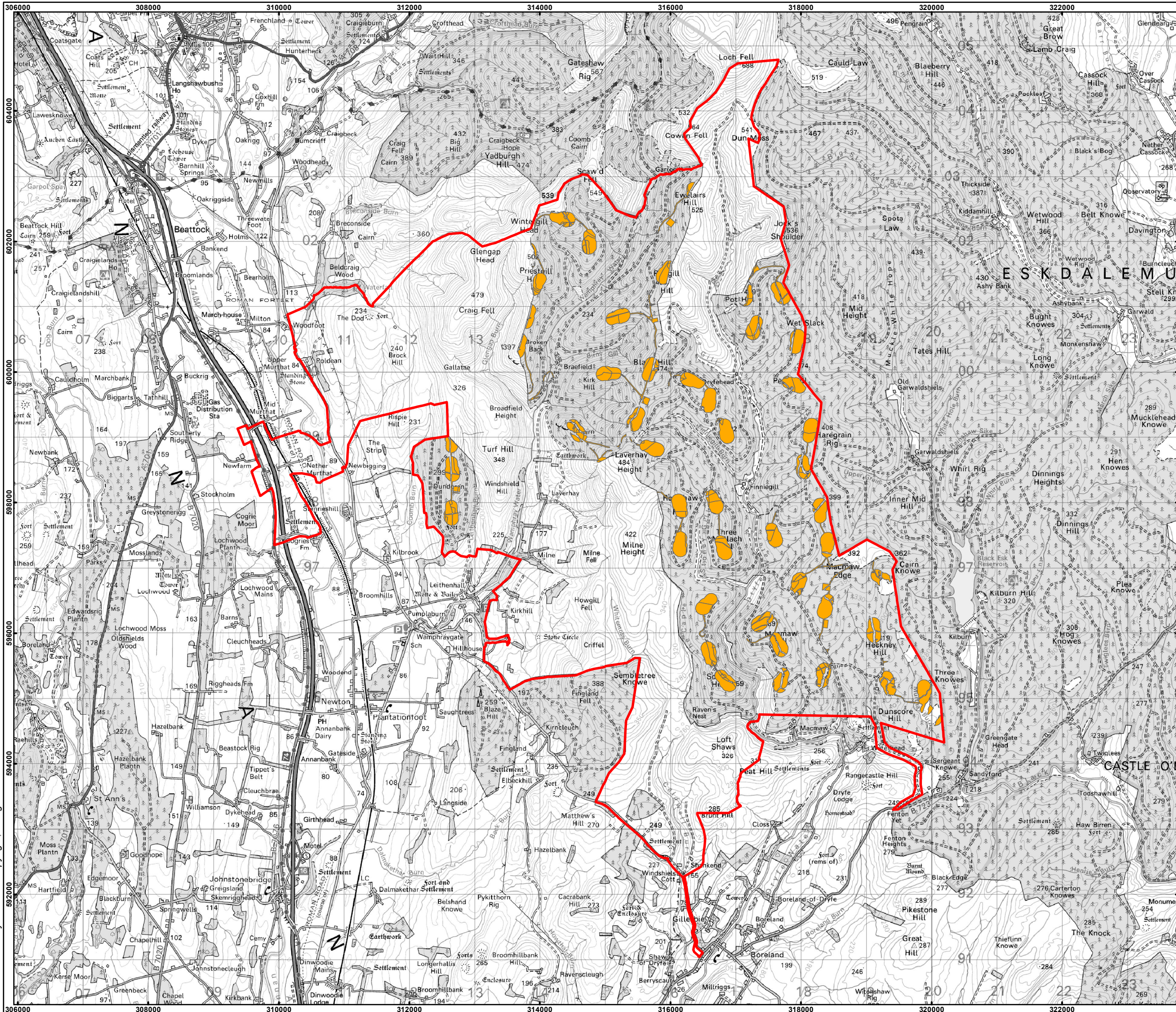
Notes: N/A  
Revisions: N/A

0 500 1,000 2,000 m  
Scale: 1:55,000 @ A3

### Figure 13.5 – Forestry Planting Years/Decades

Date: 15/04/2020 Ref: 374-200415-7269-A  
Produced: DR Reviewed: SM Approved: GC





## 374 Scoop Hill

### Legend

- Site
- Proposed

Notes: N/A  
Revisions: N/A

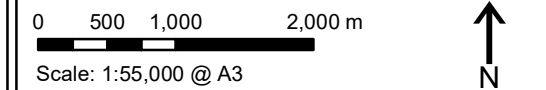
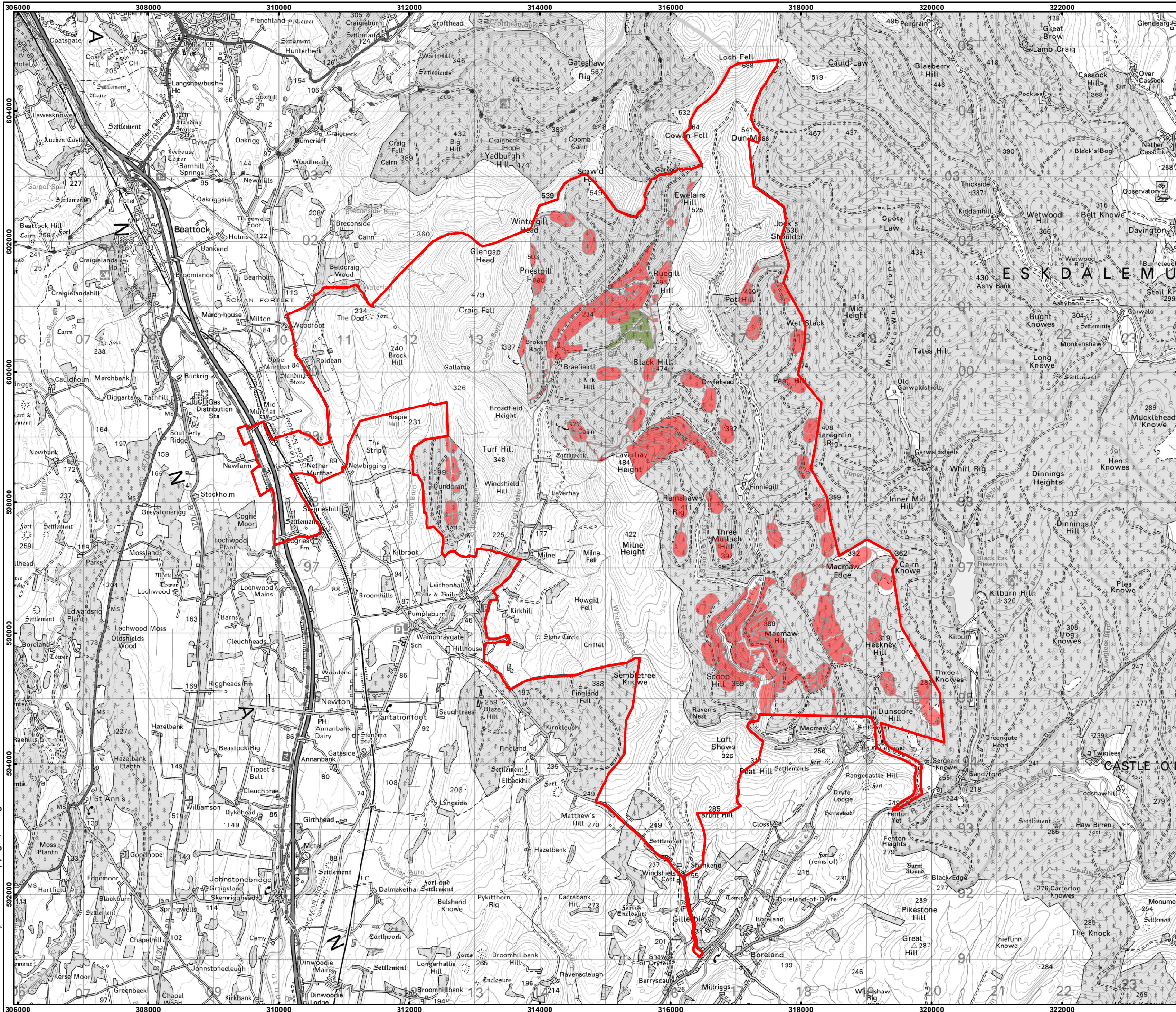


Figure 13.6 – Required Tree Felling

Date: 15/04/2020 Ref: 374-200415-7272-A  
Produced: DR Reviewed: SM Approved: GC





## 374 Scoop Hill

### Legend

Site Boundary

Proposed LTFF

T2020-24

T2025-29

Notes: N/A

Revisions: N/A

0 500 1,000 2,000 m  
Scale: 1:55,000 @ A3



Figure 13.7 – Proposed Alterations to LTFF, Felling Phases

Date: 15/04/2020

Ref: 374-200415-7273-A

Produced: DR

Reviewed: SM

Approved: GC