



Forestry England

Dodd Wood Forest Design Plan 2020

North England Forest District



Forestry England forests and woodlands have been certified in accordance with the UK Woodland Assurance Standard (UKWAS)



Planning and District Context

The Strategic Plan for the **Nation's Forests** outlines the delivery of forest policy at a national level. At a regional level there are six Forest Districts covering the country that directly oversee the implementation of policy actions in local public forest estate woodlands. Forestry England is the organisation responsible for managing the English public forest estate.

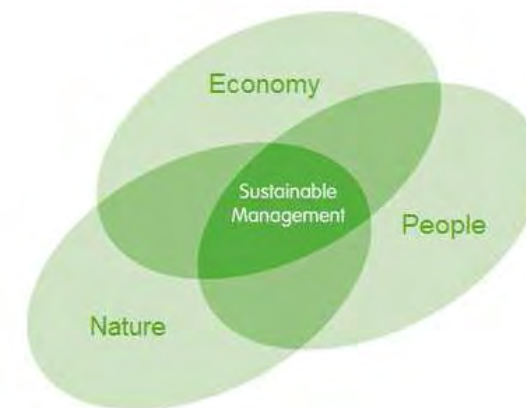
North Forest District (NFD) is the management unit that manages the **Nation's Forests** in Northern England. This is an extensive area encompassing 9 county or unitary authority areas from the Scottish border to Durham and Lancashire.



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

The woodlands of the district are currently arranged in 59 management areas, and their management is covered by individual ten-year Forest Plans that identify local issues and the broad silvicultural management of the woods. Forest Plans are reviewed every five years.

These plans and their associated forest operations ensure that produce from the woodlands is endorsed by the Forest Stewardship Council® (FSC®) and the Programme for the Endorsement of Forest Certification (PEFC) as being produced from woodlands under good management that meet the requirements of the UK Woodland Assurance Standard (UKWAS) and the UK Forest Standard (UKFS). Individual Forest Plans aim to deliver a range of public benefits with achievable objectives that deliver the three drivers of sustainable land management outlined in the North England Forest District Strategy.



These key drivers are supported by the following Forest District Policy;

- we will optimise the financial return from timber production compatible with achievement of other forest district objectives while complying with the UK Forestry Standard and meeting the requirements of the UK Woodland Assurance Standard;
- we will provide public access to all our forests and woodlands where there are no legal or safety restrictions. We will encourage and permit a wide range of recreational activities from walking and quiet enjoyment to more specialised activities;
- we will ensure that rare and threatened habitats are protected and managed to maintain or enhance their conservation value;

Dodd Forest Plan

This is the third revision for the Dodd Wood Forest Plan which was last revised in 2007. There are no significant changes to the previous plan, however it has been brought up date in terms of work achieved over the last 10 years and ongoing implementation of the management objectives. The impacts and threats associated with emerging pests and diseases and the need to make our forests more resilient in the future has prompted changes to species composition in the restocking plan.

Part 1 Background Information

Introduction

Dodd Wood occupies an area of 302 ha to the south east of Bassenthwaite Lake, 4km north of Keswick. It lies on the western flank of the Skiddaw mountain range and is wholly within the Lake District National Park.

The majority of the land was leased from the Mirehouse Estate in 1924, while the eastern part of Dodd, Lyzzick Wood, is owned freehold with the exception of a small area leased from Close Farm. **Planting started in the late 1920's** and extent of the current afforested area was complete by **the early 1960's**. Species range from Douglas fir on the lower slopes through larch and beech to Sitka spruce at upper elevations.

Felling and restocking commenced in 1980 following wide-ranging consultations and the agreement of a felling plan. To date, approximately 30% of the original plantings have been felled. The forest has been managed to multi-purpose objectives for many years with considerable landscape planning and extensive provision made for public access, combined with extensive use of continuous cover forestry techniques to expand the area of Dodd under continuous canopy.

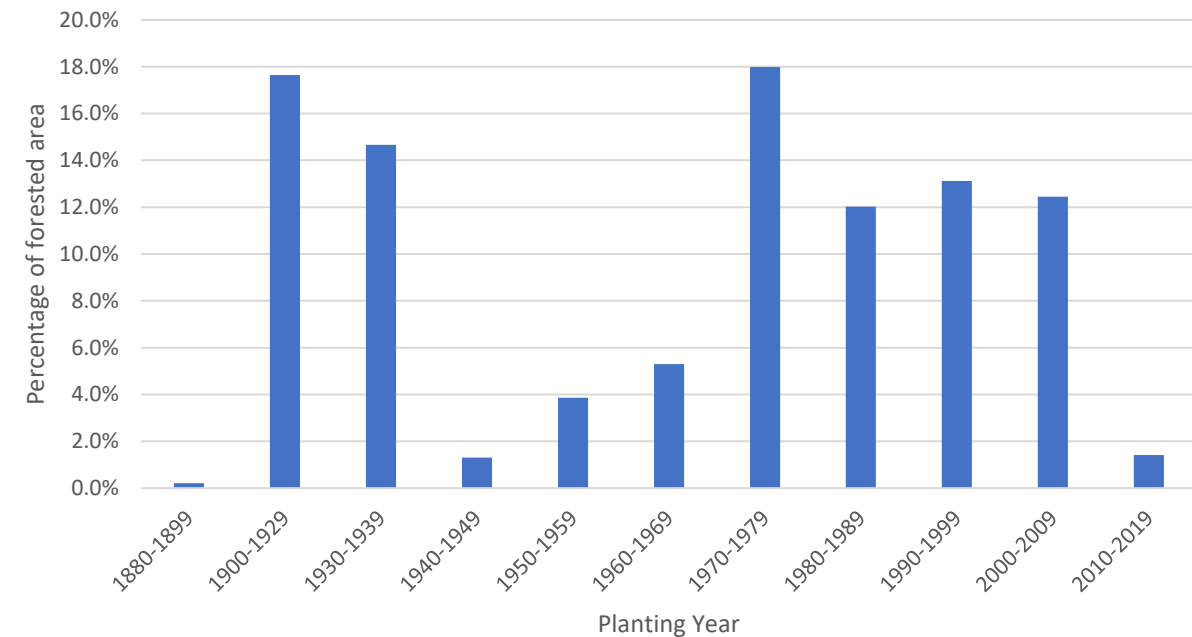
Current woodland composition, species and timber potential

The species present in Dodd represent the result of significant changes to the woodland composition over many years. Sitka spruce and mixed broadleaves make up greatest proportion of the forest with each having 25% coverage. The majority of the remaining species are a mixture of Douglas fir and larch, with some other conifer and birch present. Larch in particular has provided useful variety in the landscape, and the potential for outbreaks of *Phytophthora ramorum* presents challenges in maintaining both landscape and economic objectives in the future for Dodd.

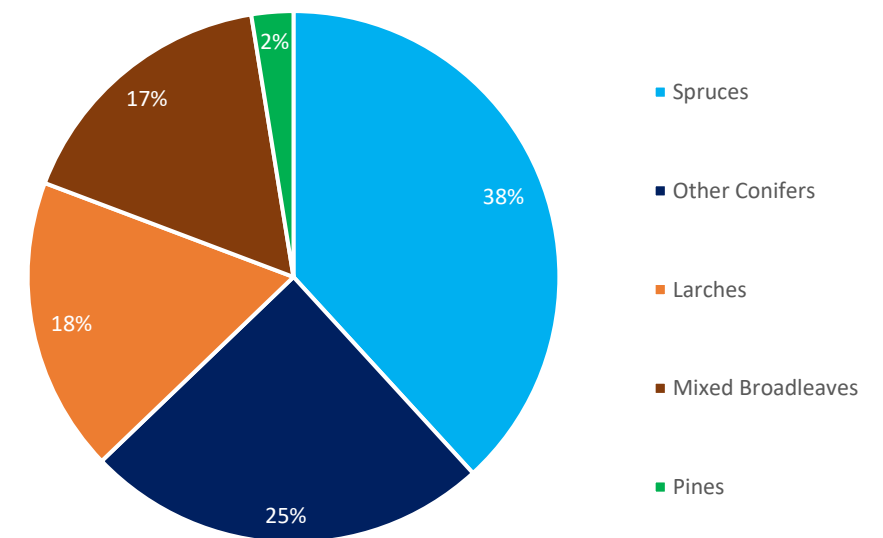
Dodd is a productive forest, with 72% of the crops being above yield class 10, while the majority of the lower yield classes are found within the relatively large proportion of mixed broadleaf crops. Average yield class across the entire forest is 12. The average wind hazard class is 2, which is low, especially when compared to other Forestry England sites in the area such as Whinlatter. As such Dodd is relatively stable and wind throw is not a significant limiting factor on management, however questions around crop stability exist over the northern part of the woodland known as Old Plantation.

Dodd has had increasingly large areas dedicated to continuous cover management for a number of years now, with these areas being managed principally through thinning and regeneration which has ensured stable habitats and enjoyment for visitors. Dodd has been used as an exemplar for this type of forest management owing to its success.

Age distribution of Dodd Wood



Dodd Wood Current Species



SAC name	SSSI name	SAC key features	Comments	Appropriate Assessment required?
Lake District High Fells	Skiddaw Group	Dry heath	Management within the Forestry England part of the SSSI (and SAC) will be as described in the SSSI management plan, currently being updated, with Natural England. The Forest Plan reflects the objectives and prescriptions which form part of the SSSI management plan. UKFS guidelines to be followed as per standard operational practice	No
River Derwent and Bassenthwaite Lake	River Derwent and Tributaries	Clear Water Lakes	Management within the Forestry England part of the SSSI (and SAC) will be as described in the SSSI management plan agreed with Natural England. The Forest Plan reflects the objectives and prescriptions which form part of the SSSI management plan. UKFS guidelines to be followed as per standard operational practice	No

As the competent authority the Forest Plan has been screened out for the purposes of appropriate assessment. The details of the screening are summarised in the table below:

While there are two small sites of Ancient Semi-Natural Woodland on the edges of Dodd Wood, these are privately owned and are not part of this forest design plan of Forestry England's leasehold.

There are no designated sites of archaeological or historic interest within Dodd Wood, however Rose Cottage Quarry at NY235274 is recorded on the Lake District Historic Environment Record and is routinely protected during forestry operations. Dodd is also transacted by the possible site of a Roman Road from Keswick to Caermote, which was thought to pass through the modern forest boundary adjacent to the existing A591.

Environment and conservation

Dodd is home to a population of red squirrels, which is monitored in partnership with the Northern Red Squirrels group and their local ranger. Grey squirrels are also present, and are also monitored and controlled in conjunction with Red Squirrels Northern England. The woodland management regime of thinning with small gap felling to encourage regeneration will continue to benefit the red squirrel population. This structured approach to felling and restocking helps to diversify the range and age of seed bearing conifer species which is important in order to sustain a continuous food supply. The forest and surrounding area is good habitat for birds of prey and has in the past included nesting ospreys. Maintaining and enhancing appropriate habitat is a considerable focus of our management.

Dodd hosts a large population of toads on the lower slopes of the forest amongst the leaf litter, in spring these toads migrate to breed into the wetland at the southern end of Bassenthwaite Lake. The local Frog Life group assist the toads during this migration. Any harvesting work in this area is planned to be carried out during the short window when the toads are away breeding.

Sedimentation from soil erosion has been identified as a key factor in the ecological decline of Bassenthwaite Lake and tree cover can be an excellent land use in stabilising such erosion when combined with sustainable management that adheres to UKFS Forest and Water guidelines. The increased commitment within this forest plan for a Low Impact Silvicultural Systems approach over the majority of Dodd Wood will be of benefit to reducing the impacts of soil erosion in the area.

Areas of priority habitat in Dodd Wood have been identified in some of the older areas of deciduous woodland planted in the first half of the 20th century. Management of these areas is mostly to protect and enhance these areas. In the longer term, regeneration of these areas will need to be encouraged although some areas will be suited to non-intervention strategies. Conservation interest associated to these and the remnants of this habitat in other areas include features such as veteran trees, deadwood and riparian zones. These features of interest are safeguarded and enhanced during felling or thinning operations.

A large area of Dodd Wood was previously recorded as a Plantation on Ancient Woodland Site (PAWS) by Natural England, however more recent datasets have removed this status. Enquiries are underway to assess the validity of this change to the data, and the older area of PAWS is

Designated areas and heritage

Dodd is situated wholly within the Lake District National Park and the English Lake District World Heritage Site, which was inscribed as a cultural landscape in 2017. The National Park and World Heritage Site provide the opportunity to demonstrate, at a practical level, how activities such as forestry, which have been prominent in shaping the landscape we see today, can create greater public benefit through sustainable land management delivering for people, the landscape, nature, and the economy. For example, this can be achieved through conserving and enhancing the landscape, scenic beauty, and cultural heritage of the Lake District, whilst also providing wider ecosystem services to support communities' social and economic wellbeing in a sustainable way.

The higher altitude land of the Dodd Wood land holding is part of both the Skiddaw group SSSI and the Lake District High Fells SAC and is primarily important for its heather moorland. At the last Natural England assessment this was in unfavourable recovering condition, with our management focused on removing conifer regeneration and maintain the forest boundary.

The Throstle Shaw and Sandbeds Fan SSSI is designated for its geological interest and comprises two separate areas with geological exposures, both of which are situated within the woodland. Of importance is the contribution Dodd Wood makes to water quality - being a major catchment component of Bassenthwaite Lake (NNR, SSSI, and SAC).

detailed on the conservation map. This forest plan does not propose planting non-native species in the area formerly categorised as PAWS for the life of the plan, with all clear fell and restocking operations in this area taking place outside of the life of this plan.

Landscape and topography

Dodd Wood is located within the ‘Skiddaw and Blencathra’ Landscape Character Area (LDNPA, 2008). The area’s distinctive characteristics include the coniferous woodlands cloaking the south western slopes; including Dodd Wood. Other characteristics of this distinctive area which **Dodd Wood contributes to include the ‘seasonally changing kaleidoscope of colours’ alongside the ‘extraordinarily remote and tranquil landscape’.**

The guidelines for managing landscape change refer to encouraging the sustainable management of broadleaved woodland and maintaining continuous cover.

Of significance to recreational and tourist interest is the contribution the forest makes to the wider external landscape as well as how the forest and wider landscape look internally. Dodd Wood occupies a sensitive area in this landscape. Dodd Wood can be seen from the A66 and along the western shores of Bassenthwaite, as well as being highly visible on the western flanks of the Skiddaw range. While the A591 passes along the boundary of the wood and is the point of access from car, other than the fringes of the wood it is not highly visible from this road. Woodland cover ascends from the 80 metre to the 450 metre contour. Dodd summit has appeared as a more prominent feature since tree removal on the summit. The wood is bounded by a mixture of farmed land, small parcels of privately owned woodland and open fell. The careful planning of felling and continuous cover areas has enhanced the internal landscape, with several areas of mature conifers, particularly of Douglas fir, having significant value.

Communities and recreation

Dodd is primarily used for recreational purposes by walkers. Dodd Fell is a popular and accessible Wainwright summit with good access using the forest road network, and public footpaths. It is often climbed as part of a circuit with other northern fells including Skiddaw.

The forest road network is complimented by four walking trails which incorporate stretches of forest roads and footpaths for a total length of 8.26km of permanent trails in Dodd Wood. Informal paths and trails are also scattered across Dodd wood, although the summit trail is the focus for most visitors.

One paid car park formally serves Dodd, with informal use of pull ins along the length of the A591 alongside the forest providing additional parking for visitors. The formal car park contains a toilet block maintained by Forestry England and a tearoom run by the Mirehouse estate.

The Lake District Osprey Project has had made observations from Dodd Wood for 20 years and has been facilitated through a permanent viewpoint in the forest, providing reliable view of the osprey breeding area. Future focus of the Osprey Project is to shift to a new development in Whinlatter Forest, where a new viewpoint provides better viewing of the nests. While the project focus will move from Dodd to Whinlatter, the Dodd viewpoint will remain and continue to be an accessible alternative for visitors.

Pests and diseases

Dodd has been the site of some small-scale great spruce bark beetle (*Dendroctonus micans*) infestations. As a result, there have been predatory beetle (*Rhizophagus grandis*) releases in recent years to aid control of the spruce bark beetle.

Roe deer are present throughout and the population is controlled to ensure that deer numbers do not compromise other objectives of management. Deer control is conducted by Forestry England staff, and cull numbers are recorded. Red deer have established a small herd in the Bassenthwaite area and occasionally wander into Dodd Wood. Control of red deer is also undertaken to prevent this population establishing in the forest.

Dodd Wood is home to a population of red squirrels which are monitored. Grey squirrels are also present throughout the woodlands and have the potential to cause damage to mature trees. Grey squirrels are controlled in partnership with the Red Squirrel **Northern England’s** local ranger.

Nationally and regionally larch is under threat from the disease *Phytophthora ramorum* and although there have been no disease outbreaks in Dodd Wood crops will be routinely inspected. Should there be an outbreak our response is to respond swiftly through adherence to Statutory Plant Health Notices, as issued and agreed with by the Forestry Commission, to reduce the spread of the disease within the forest and to neighbouring woodland. Consequently, there will be no future restocking of larch and there will need to be ongoing vigilance from staff in thinned areas of continuous cover where larch occurs as natural regeneration. Larch is an important species in the landscape in terms of providing seasonal changes in colour and texture across the forest. As part of our strategy to deal with the impact of the disease, Forestry England is actively seeking the use of alternative species which provide a positive outcome in terms of increasing opportunity for diversification and improved future resilience.

Access and roading

Dodd is accessible directly from the A591 and is only a short distance from the main East-West A66 trunk road allowing good access for timber haulage.

Internally forest operations are adequately served by a network of forest roads and tracks for most planned operations, however there is an operational need for a track to be upgraded in the Old Plantation area of Dodd Wood to road standard to allow for timber harvesting. This will be dependent on a future EIA and not part of this Forest Design Plan. The interim route of this road upgrade is shown on the design concept map for reference.

Part 2 Analysis and Concept

The factors outlined in Part 1 present various opportunities and constraints. These are summarised below:

Factor	Issues/Constraints	Opportunities
Management type	Natural regeneration may not always be the desired species. Clearfell regime to the east of the forest has been interrupted by windblow events.	Selective thinning to favour preferable species. Expansion of Low impact silvicultural system management to include some previous clearfell coupes.
Biodiversity and heritage	Threats to native red squirrel population by grey squirrels.	Low impact silvicultural systems forestry provides opportunity to target thinning operations for greatest biodiversity benefit and reduce impact on species. Transitional woodland enrichment with scrub species will increase biodiversity.
Access/Roading	Currently inadequate access to Old Plantation for future woodland management and operations. Some drainage issues on 'Tarmac Hill' up from the café requires a drainage plan to reduce impacts on A591 during extreme storm events.	Generally good internal network of roads with all current operations areas served well.
Harvesting	Yield and timing of thinning operations less predictable than clearfell systems	Low impact silvicultural system management will provide a gradual change in woodland structure which benefits both biological and landscape sensitivity.
Pests and disease	Larch is widely distributed and at risk from P. Ramorum. Some areas are highly visible in the landscape and managed as continuous cover for biodiversity and landscape. Deer and grey squirrels present challenges to natural regeneration and hardwood timber quality.	Replacing felled infected areas with alternative conifer species and native broadleaves will contribute to species diversification and improve long term resilience of the forest. Continued management of pests and disease to control numbers and reduce impacts on forestry.
Landscape	Some clearfell coupes visible in a sensitive landscape.	Where clear felling is needed aim to keep coupe sizes to a minimum. Use

	Regen on Dodd Summit includes non-native spruce species.	of widespread Low Impact Silvicultural System management delivers gradual change with limited landscape impact. Staged interventions to reduce dominant of spruce species from Dodd summit.
Current species	Presence of larch which is at risk from P. Ramorum will need regular monitoring.	Conifer species generally growing well which will provide a sustainable yield throughout. Extension of LISS management and utilisation of natural regeneration to build a diverse and varied forest structure to increase resilience.
Public access	Move of focus for the Osprey Project from Dodd Wood to Whinlatter.	Location within Lake District National Park and proximity to other Forestry England Sites will continue to see Dodd as a popular site for visitors, combined with continued access to and maintenance of existing Osprey viewpoint. Potential for linking existing footpaths to improve connectivity in the forest for walkers.

Appraisal of Opportunities and Constraints

1. Landscape impact - While much landscape improvement has taken place at Dodd over the last thirty years, the significance of the view from the lakeshore requires that any changes in forest structure needs to be progressive wherever practical so that changes do not dominate the view.
2. Old Plantation and northern part of Dodd - There is an area of mixed woodland at the northern extent of Dodd Wood which runs parallel to the A591. This area is reaching maturity and has not been previously thinned due to a lack of access from the current infrastructure in Dodd. This area will likely require roading in the near future (show on the Operations map) subject to EIA approval.
3. Phytophthora Ramorum - risk of infection to larch species in the forest, as borne out in other Cumbrian blocks. Larch still makes up a considerable component (18%) in Dodd and will need to be carefully managed and gradually reduced to balance the impact on the landscape while reducing the risk of widespread infection.

Part 3 Objectives and Proposals

The following objectives have been identified based on Forestry England National Policy and NEFD Strategic Plan

Forest District Strategic Goal	How Forest Plan delivers
<p>ECONOMIC</p> <p><i>‘we will optimise the financial return from timber production compatible with the achievement of other district objectives whilst complying with the UK Forestry Standard and meeting the requirements of the UK Woodland Assurance Standard’</i></p>	<p>Felling proposals are relatively simple with most focus based on the continued thinning of the forests under a continuous cover regime. The harvesting plan provides a sustainable yield of timber into the future.</p>
<p>NATURE, HERITAGE and LANDSCAPE</p> <p><i>‘we will continue to diversify the age class structure of our even-aged woodlands and increase the value of all our woodlands and forest for wildlife’</i></p> <p><i>‘we will ensure that rare and threatened habitats are protected and managed to maintain or enhance their conservation value’</i></p>	<p>Ongoing restructuring through the felling and restocking proposals to create linkage of open, conifer and broadleaved habitat across the forest to maximise connectivity.</p> <p>Establishment of upper edge transitional habitat adjacent to the SSSI at Long Side, as well as surrounding the open area of Dodd summit.</p> <p>Creation of additional riparian habitats with broadleaf planting along watercourses, increasing diversity and connectivity.</p> <p>Continue to manage the forest for red squirrels and other protected species.</p> <p>Historic features will be routinely identified and protected during our planning and implementation of forest operations.</p>
<p>PEOPLE</p> <p><i>‘we will utilise the land and resources at our disposal to assist communities close to our forests to enhance their environments and hence their quality of life’</i></p>	<p>Effective strategic and operational planning to ensure the forest fits well in the landscape and is resilient to accommodate change.</p>

<i>‘we will provide public access to all our forests and woodlands where there are no legal or safety restrictions...’</i>	Consult and engage fully with local communities and visitors regarding any proposed developments of the forest.
--	---

Part 4 Monitoring plan

The objectives identified in section 3 will be monitored in the following ways:

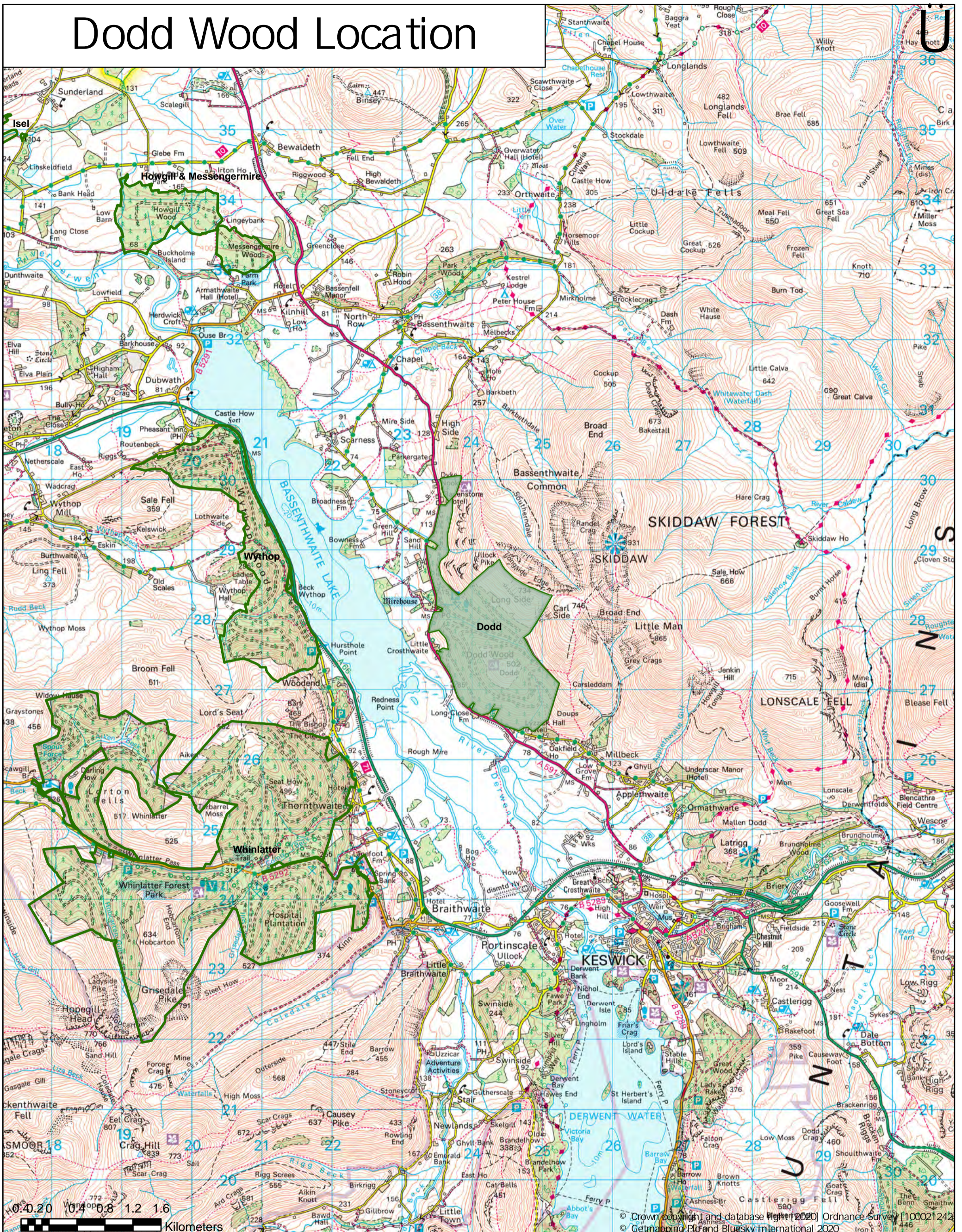
Objective	Criteria for success	Assessment
ECONOMIC		
Wood production	Marketable parcels of timber on offer to the market	Contract and sales records
Sustainable economic regeneration	Maintain timber harvesting access and infrastructure	Five yearly Forest Plan review.
NATURE, HERITAGE and LANDSCAPE		
Restructuring & Landscape	Delivery of Forest Plan felling and thinning proposals	Five yearly Forest Plan review
Historic features	Protect and enhance features	Operational constraint plans and five yearly review
Habitats	Enhance habitats	Five yearly Forest Plan review
PEOPLE		
Access, communities, health and wellbeing	Continue to promote opportunities for the understanding and enjoyment of the special qualities of the forest within the Lake District National Park	Five yearly Forest Plan review.
Continue to maintain and provide access for Osprey viewpoint after Osprey project has moved.	Continued provision of the Osprey viewpoint	Five yearly Forest Plan review.

Part 5 Forest Plan Maps for Dodd Wood

- Location - 1:50,000 scale showing location in context of other woodland in the local area
- Current Species - species composition in 2020.
- Yield Class - representing the productivity of the current species
- Wind Hazard Class - indicating the windiness of the sites.
- Planting Year - representing the age class distribution of the woodlands.
- Conservation and Heritage - statutory and non-statutory conservation and heritage features.
- Access and recreation - formal public rights of way, FC access and local services.
- Hazards and Constraints - operational hazards and constraints.
- Design Concept - broad management prescriptions and zoning of the woodlands.
- Operations Proposals - showing felling proposals and areas managed under Low Impact Silvicultural Systems or Continuous Cover Forestry.
- Future Species - representing the 20-year vision for future species composition.

The maps contained in this plan are scaled at A3 size. Accuracy may vary depending on printer used.

Dodd Wood Location



Dodd Wood Location
03/11/2020

Scale: 1:50,000

- Dodd Wood
- Other Forestry England Woodland

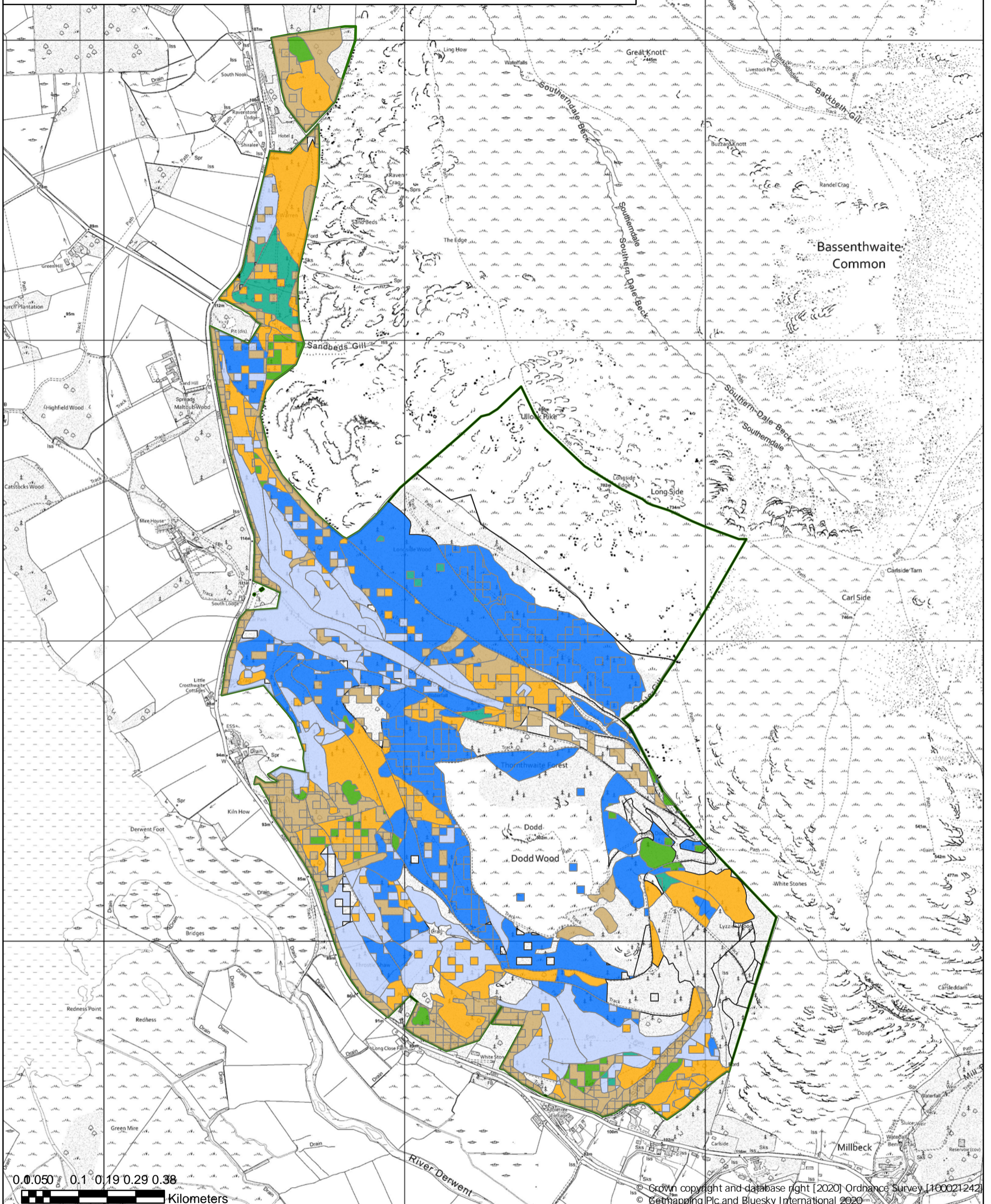


Forestry England forests and woodlands have been certified in accordance with the UK Woodland Assurance Standard (UKWAS)



Dodd Wood Current Species

Ü



Dodd Wood Current Species
03/11/2020

Scale: 1:12,000

Current Species

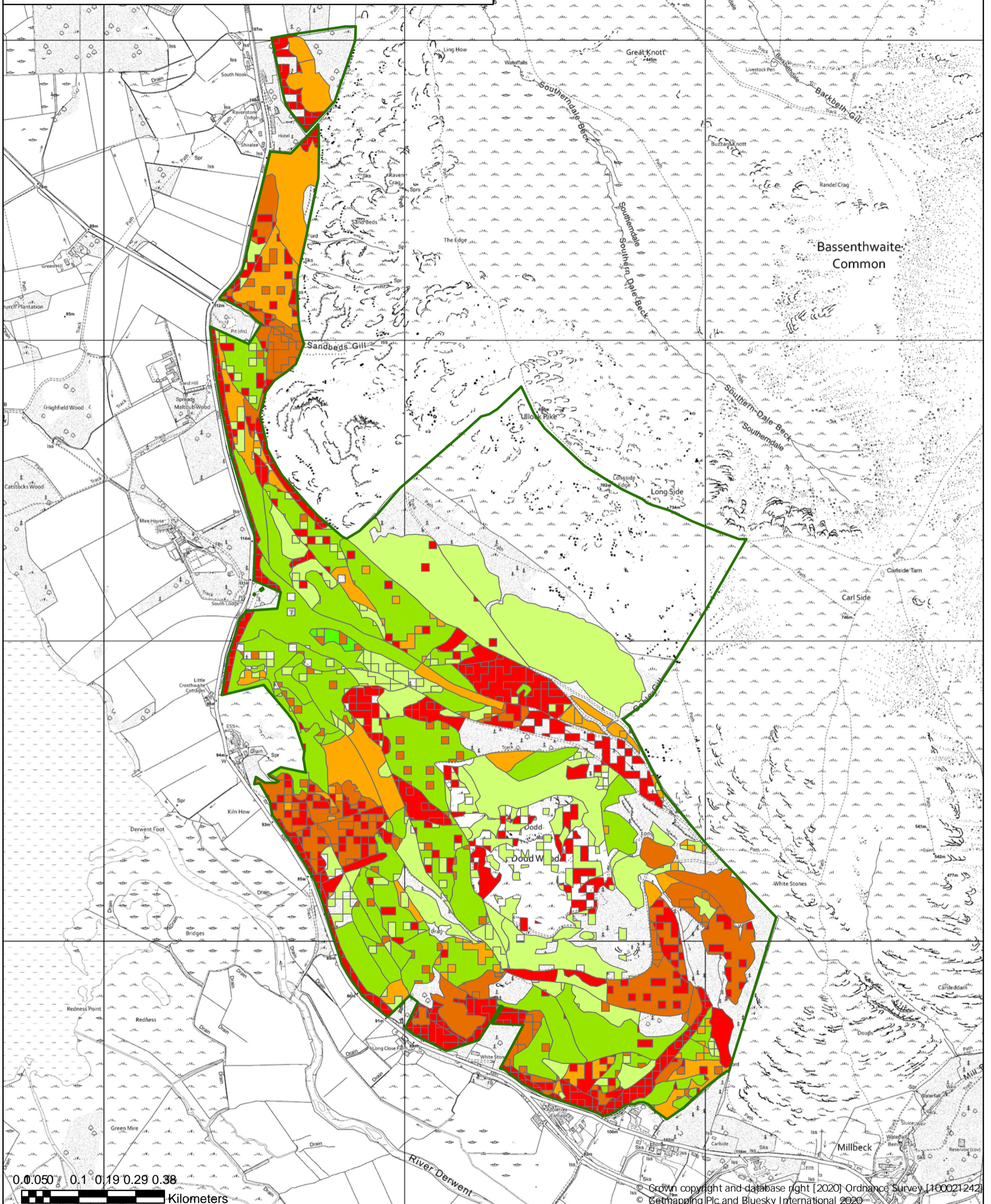
-  Open/Recently Felled
-  Mixed Broadleaves
-  Larches
-  Pines
-  Other Conifers
-  Douglas Fir
-  Sitka Spruce



Forestry England
forests and woodlands
have been certified in
accordance with the UK
Woodland Assurance
Standard (UKWAS)



Dodd Wood Yield Class



0 0.050 0.1 0.19 0.29 0.38
 Kilometers

© Crown copyright and database right [2020] Ordnance Survey [100021242]
 © Getmapping Plc and Bluesky International 2020



Dodd Wood Yield Class

03/11/2020

Scale: 1:12,000

Yield Class

- 0-4
- 6-8
- 10-12
- 14-16
- 18-22
- 24+

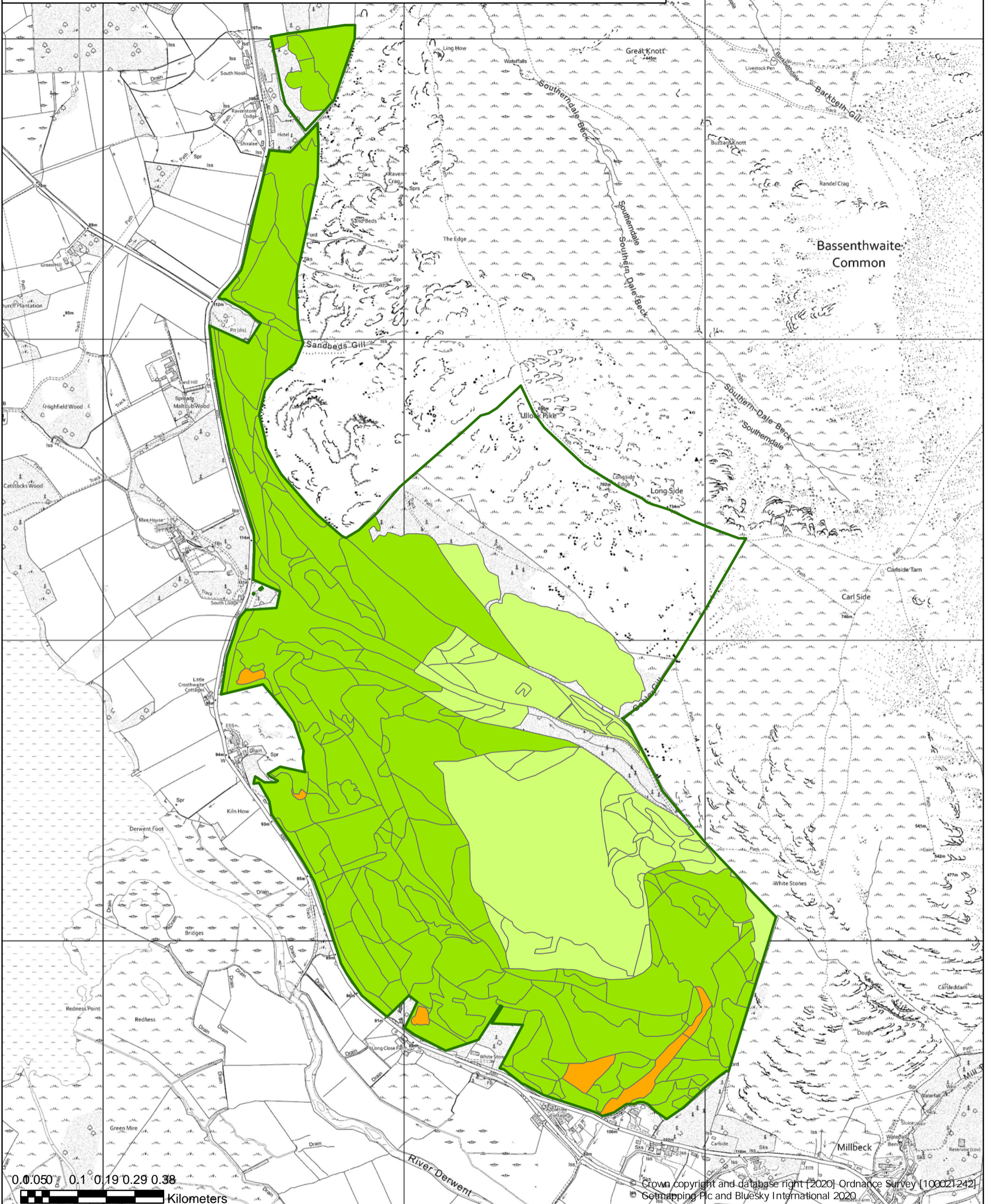


Forestry England
 forests and woodlands
 have been certified in
 accordance with the UK
 Woodland Assurance
 Standard (UKWAS)



Dodd Wood Wind Hazard Class

Ü



Dodd Wood Wind Hazard Class
03/11/2020

Scale: 1:12,000

Wind Hazard Class

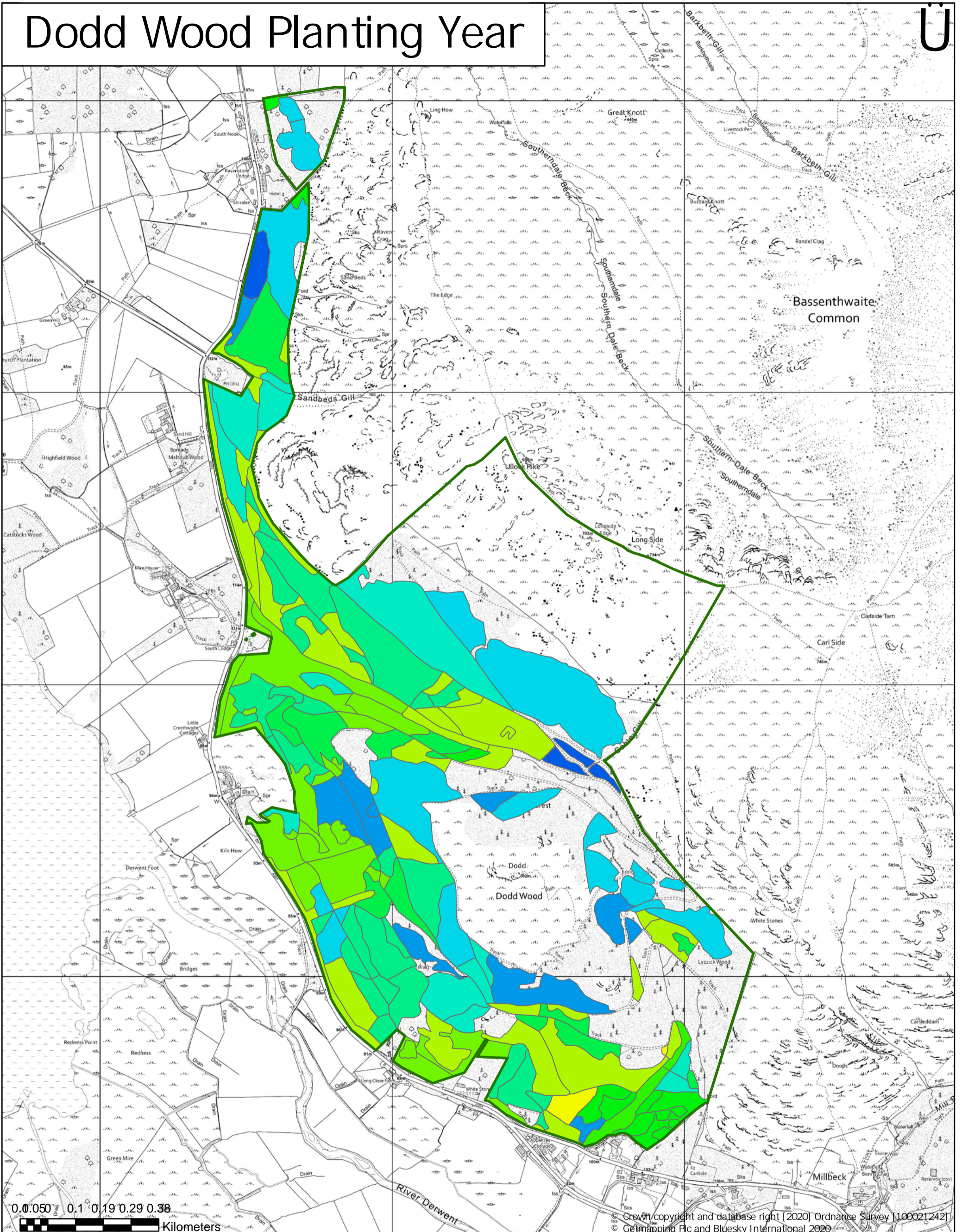
- 1
- 2
- 3
- 4
- 5
- 6



Forestry England
forests and woodlands
have been certified in
accordance with the UK
Woodland Assurance
Standard (UKWAS)



Dodd Wood Planting Year



Dodd Wood Planting Year
03/11/2020

Scale: 1:12,000

Planting Year	
■	Pre 1700
■	1701-1800
■	1801-1850
■	1851-1900
■	1901-1920
■	1921-1930
■	1931-1940
■	1941-1950
■	1951-1960
■	1961-1970
■	1971-1980
■	1981-1990
■	1991-2000
■	2001-2010
■	2011-2020

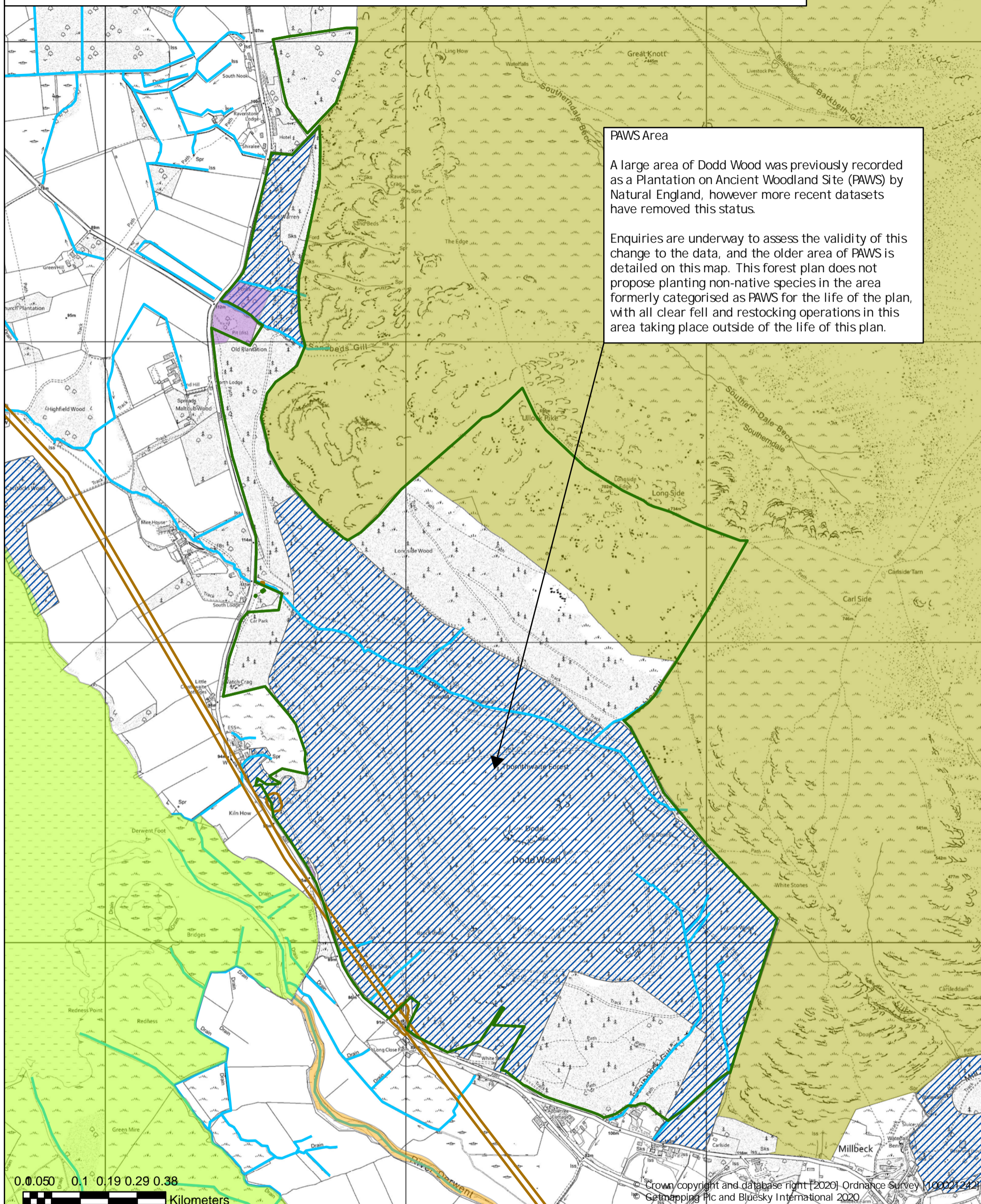


Forestry England
forests and woodlands
have been certified in
accordance with the UK
Woodland Assurance
Standard (UKWAS)



Dodd Wood Conservation & Heritage

Ü



Dodd Wood Conservation & Heritage
03/11/2020

Scale: 1:12,000

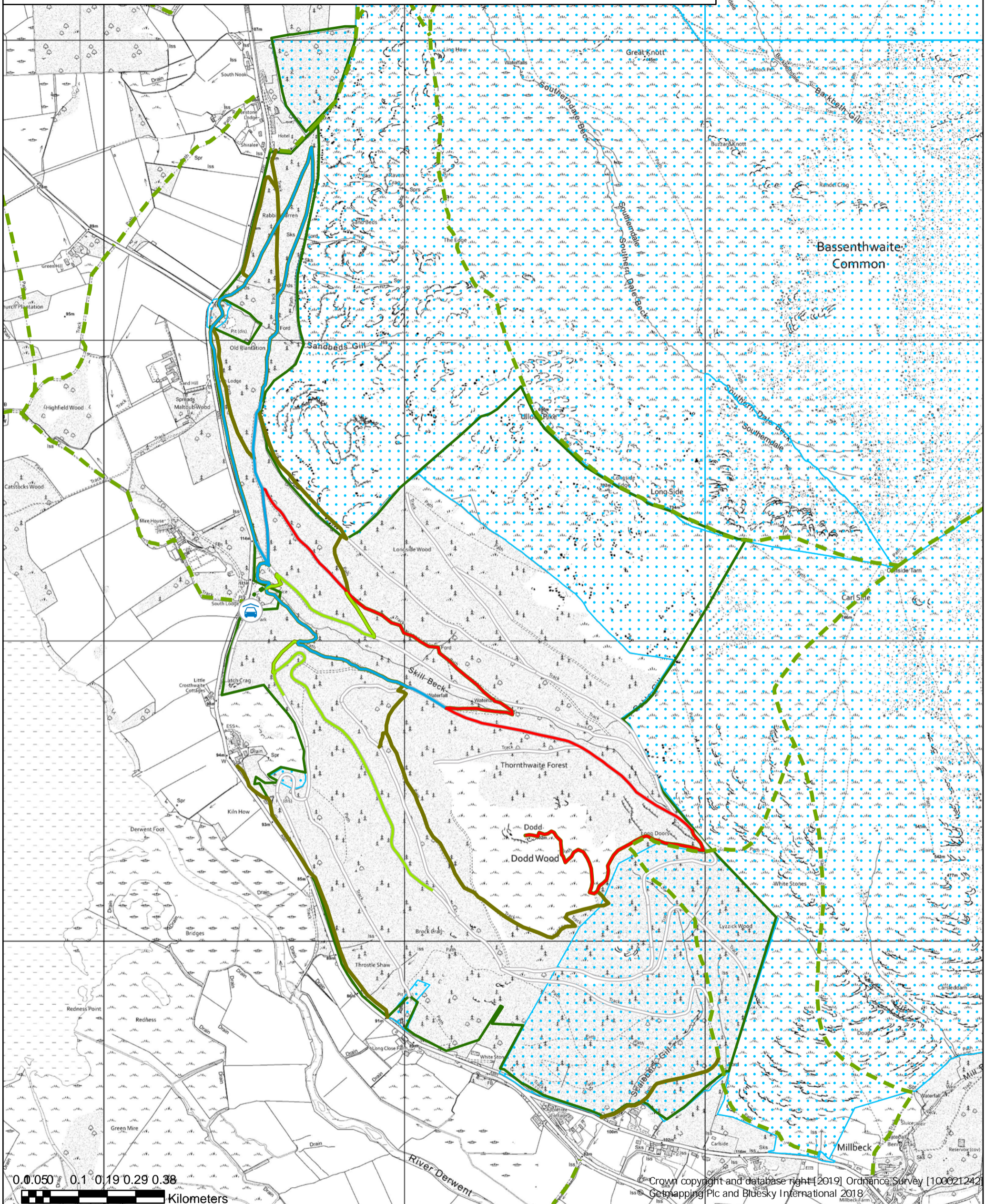
- | | |
|-------------------------------------|--------------------------------|
| Dodd Wood | SSSI |
| Heritage Feature | Barf and Thornthwaite |
| Watercourses | Bassenthwaite Lake |
| Ancient Semi-Natural Woodland | River Derwent and Tributaries |
| Plantation on Ancient Woodland Site | Skiddaw Group |
| | Throstle Shaw and Sandbeds Fan |



Forestry England
forests and woodlands
have been certified in
accordance with the UK
Woodland Assurance
Standard (UKWAS)



Dodd Wood Access and Recreation



0.050 0.1 0.19 0.29 0.38
Kilometers

© Crown copyright and database right (2019) Ordnance Survey [100021242]
© Getmapping Plc and Bluesky International 2018

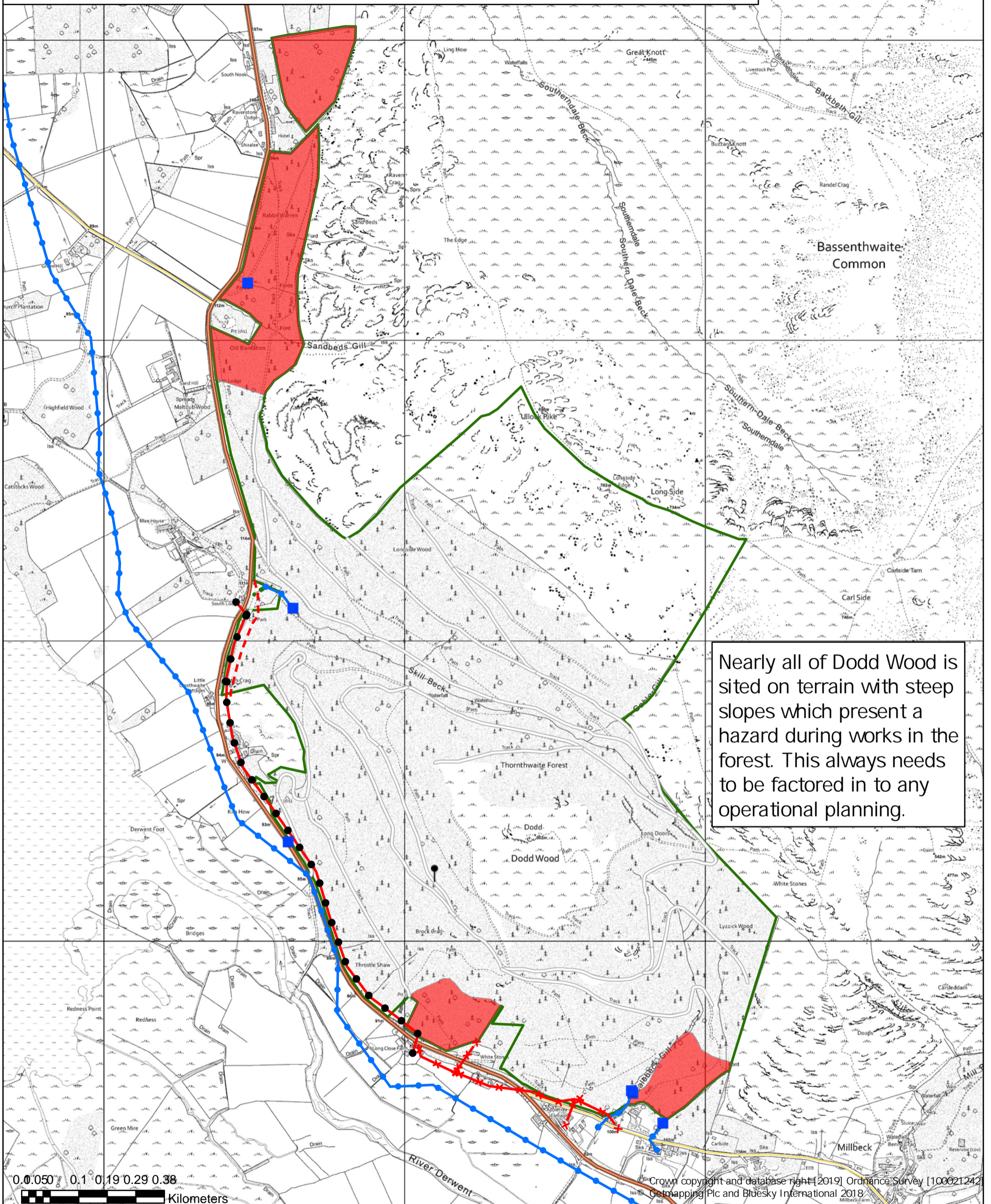
<p>Dodd Wood Access and Recreation 03/11/2020 Scale: 1:12,000</p>	Car Park	Difficult Walking Trail
	Public Right of Way	Other Trail or Permissive Path
	Easy Walking Trail	Forest Road
	Moderate Walking Trail	CRoW Access Land

Forestry England forests and woodlands have been certified in accordance with the UK Woodland Assurance Standard (UKWAS)

Promoting Sustainable Forest Management

Dodd Wood Hazards and Constraints

Ü



<p>Dodd Wood Hazards and Constraints 03/11/2020 Scale: 1:12,000</p>	Poor Access Area	Underground powerline
	Masts/Aerials	Overhead telephone or fibreoptic
	Water Supply Points	A Road
	Water Pipelines	Minor Road
	Overhead powerline	Forest Road

Forestry England forests and woodlands have been certified in accordance with the UK Woodland Assurance Standard (UKWAS)

Promoting Sustainable Forest Management

Dodd Wood Design Concepts

Old Plantation Zone

Old Plantation to the north of Dodd Wood is a steep sloped finger of woodland adjacent to the A591. Using a mixture of clear fell and Low Impact Silvicultural Systems (LISS) approaches this zone is to be systematically restructured to reduce the risk of future windthrow and enable conversion to a LISS managed native broadleaf woodland area.

Lower Slopes Zone

The lower slopes of Dodd Wood are a stable mixed species forest which is attractive and visible in the landscape. Important for recreation use and wildlife, the management of this area will be carried out using Low Impact Silvicultural Systems (LISS). LISS is an approach to forest management that helps increase structural diversity in forests while generally causing less rapid change to the landscape and physical environment than clear felling systems. LISS is based upon a presumption against clear felling and utilises natural regeneration to create a varied forest structure with a variety of species.

Upper Slopes Zone

The upper slopes of Dodd Wood are more exposed and have shallower soils making them less suitable for management using LISS. Where areas develop stability and diversity then LISS may be extended into this zone in the future. Otherwise this zone will be managed through clearfelling and restocking.

Transitional Habitat Zone

Forming a mixed, open, transitional habitat from the high forest to open ground. This zone will also soften the visual edge between forest and open ground. These areas will be allowed to regenerate naturally and maybe enriched with native scrub species such as juniper, mountain willow and rowan. This open woodland will fade from the lower forest edge into open ground above, feathering the transition between the two areas. Interventions will favour removal of non-native species so that they do not dominate.

Long Side SSSI

A separate management plan agreed with Natural England is in place for Long Side. This focuses on maintaining a predominantly open habitat while enriching some lower density scrub species such as rowan, juniper, and mountain willow.

Watercourses

Will be developed as mixed native broadleaf habitat. This positive riparian management will help to improve connectivity for species such as red squirrel and assist in maintaining good water quality.

Summit Zone

Dodd summit will be kept clear of trees to maintain the visibility of this feature in the landscape, and views from the summit out. The adjacent transitional habitat zone will soften the edge between the high forest and this open area.

0 0.050 0.1 0.19 0.29 0.38

Kilometers

© Crown copyright and database right [2019] Ordnance Survey [100021247]
© Getmapping Plc and Bluesky International 2018



Dodd Wood Design Concepts
03/11/2020

Scale: 1:12,000

- Lower Slopes Zone
- Upper Zone
- Old Plantation Zone
- Summit Zone
- Transitional Habitat Zone
- Watercourses

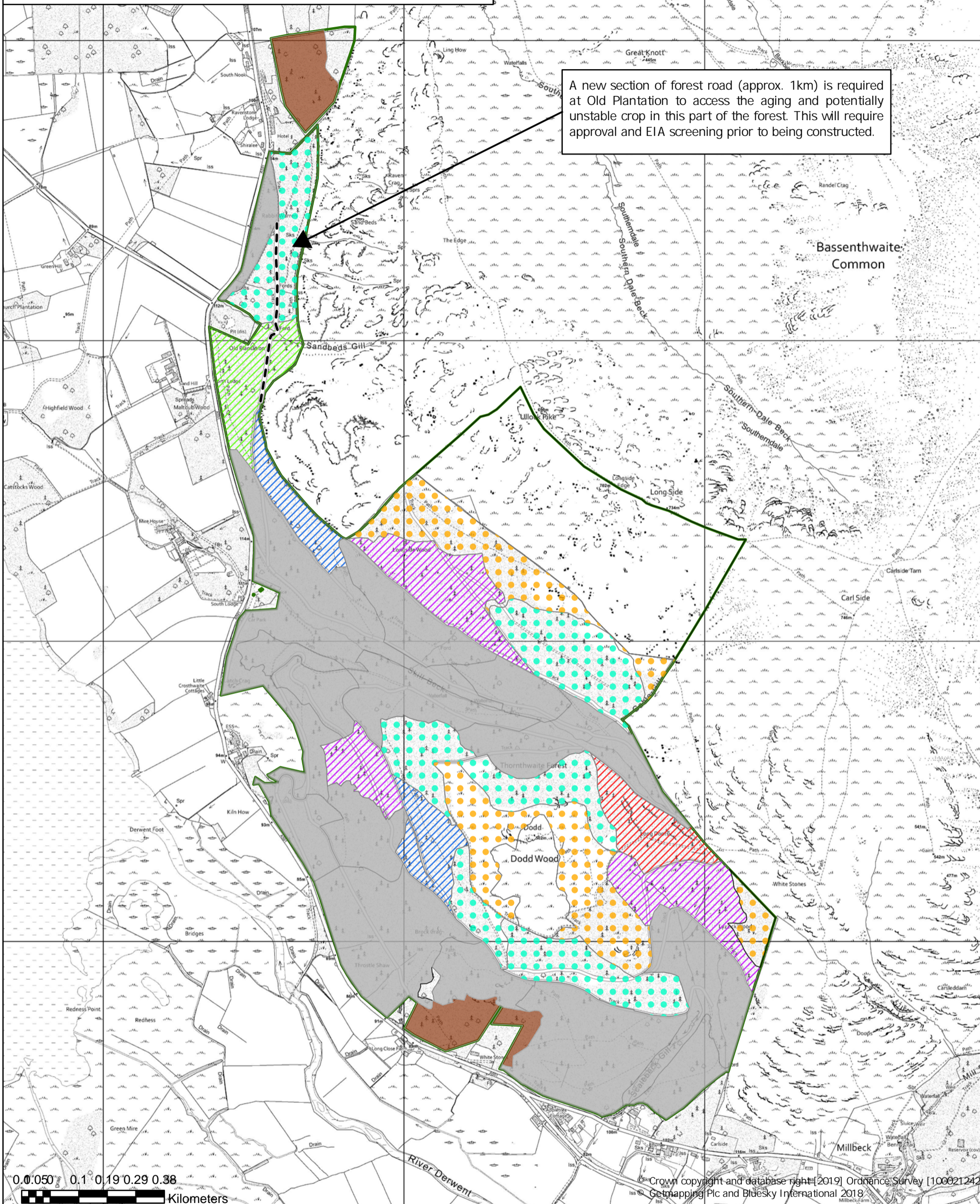


Forestry England
forests and woodlands
have been certified in
accordance with the UK
Woodland Assurance
Standard (UKWAS)



Dodd Wood Operations

U



0.050 0.1 0.19 0.29 0.38
Kilometers

© Crown copyright and database right [2019] Ordnance Survey [100021242]
© Getmapping Plc and Bluesky International 2018

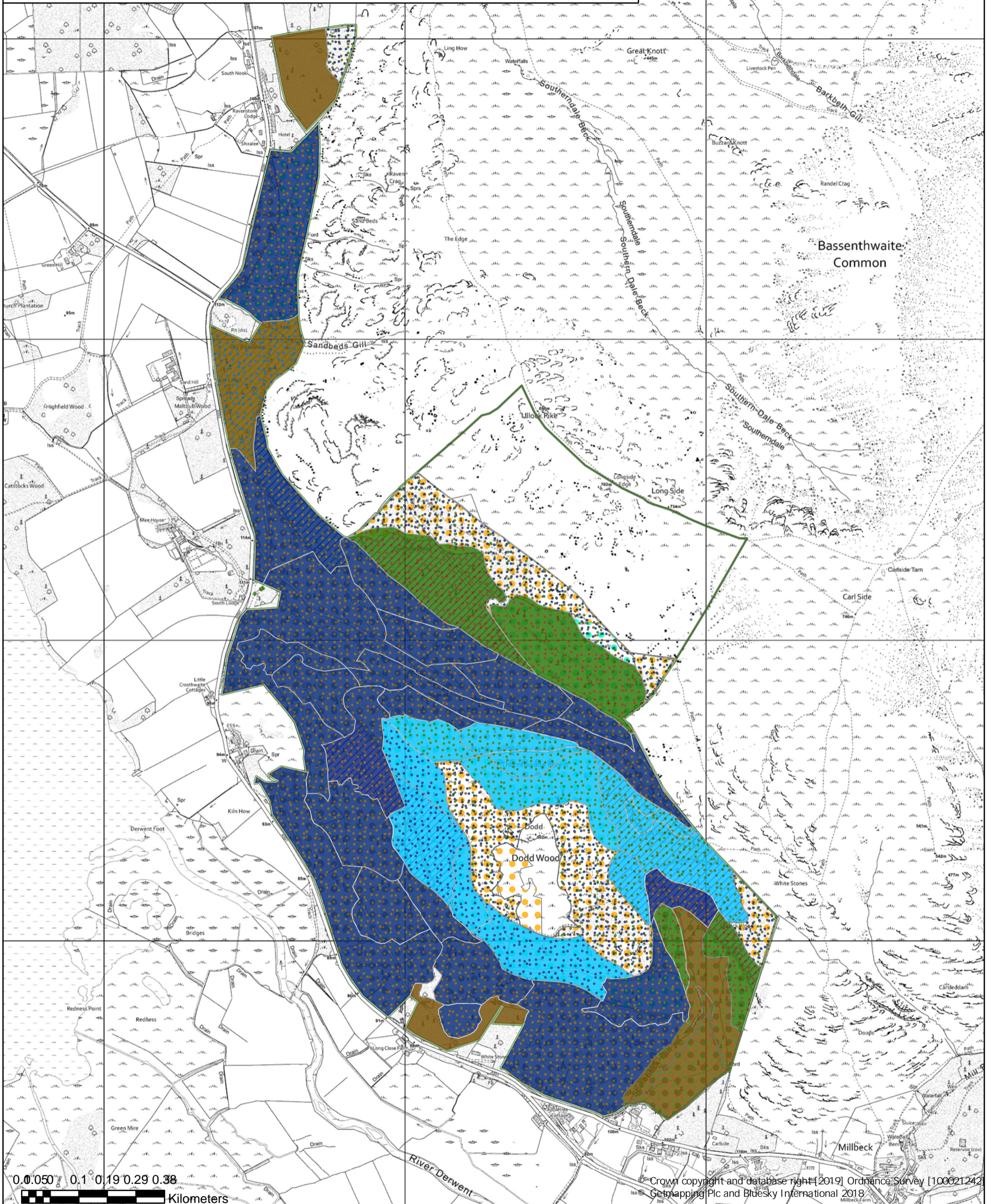
<p>Dodd Wood Operations 03/11/2020 Scale: 1:12,000</p>	New road section	2042-2046
	Open	2046+
	2022-2026	Transitional open woodland
	2027-2031	LISS
	2032-2036	Natural Reserve
	2037-2041	

Forestry England forests and woodlands have been certified in accordance with the UK Woodland Assurance Standard (UKWAS)

Promoting Sustainable Forest Management

Dodd Wood Future Species

Ü



Dodd Wood Future Species
03/11/2020

Scale: 1:12,000

- Open
- Open mixed transitional habitat
- Mixed broadleaves
- Mixed broadleaves/pines
- Mixed broadleaves/other conifers
- Other conifers/mixed broadleaves
- Spruces/other conifers
- Spruces/pines
- Pines/mixed broadleaves



Forestry England forests and woodlands have been certified in accordance with the UK Woodland Assurance Standard (UKWAS)



Part 6 Forest Plan Outcomes

Restructuring

Over the life of the forest plan, the restructuring of Dodd Wood will be gradual. The intention is not for this process to be rushed and to keep the rate of change across the forest slow. The threat of Phytophthora Ramorum to larch has the potential to cause significant disruption within Dodd, and most of the forest structure changes will be seen in these areas, as they are gradually thinned and underplanted with alternative conifer species. This plan also sets in place the expansion of Low Impact Silvicultural Systems management to wider areas of Dodd Wood, with the option for more coupes to be converted in the future. This increase in LISS management will result in greater diversity within the forest structure over time.

Landscape appraisal

Visual sensitivity is assessed with consideration to the importance and nature of views of the woodlands from key viewpoints. A comprehensive landscape appraisal was completed as part of the previous forest plan, at which time the landscape benefits of Low Impact Silvicultural System management of the woodlands was recognised. Dodd Wood fits well in the landscape in its current form and the ongoing LISS management through the period of this plan will continue to protect and enhance the landscape character of this woodland.

Timber production

The harvesting of timber remains a key element to the management of Dodd Wood as a productive forest, and the continued thinning and small coupe clearfell regimes will provide a sustainable yield of timber into the future. In the longer term, this plan helps move Dodd into a broader thinning regime, with less reliance on clearfells as Low Impact Silvicultural Systems management becomes the majority management scheme for the forest. Over the ten year period of this forest plan, we are forecast to harvest approximately 19,000m³ of timber from Dodd Wood.

The restock proposals in this plan are estimated to produce approximately 1850m³ of timber per year, this productive capacity is calculated using the average yield class across the species identified in this plan.

Natural capital

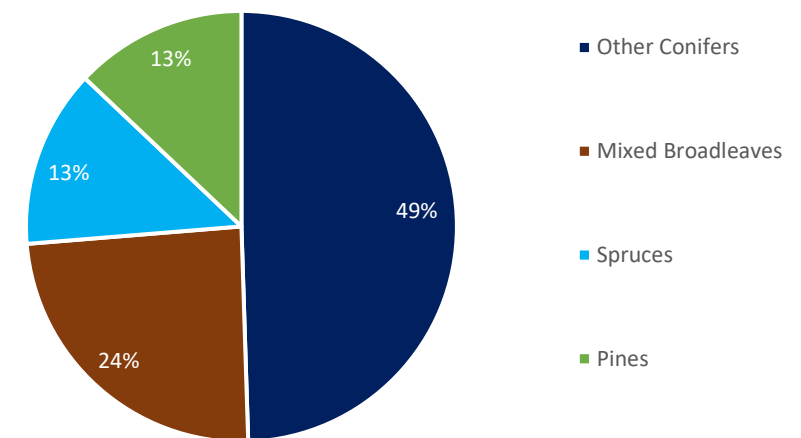
Timber represents only one of the products of a successfully managed forest. Natural Capital refers to the stock of all natural assets upon which the economy and society is built. **Natural capital produces value for people in the form of ‘goods’ such as timber or minerals and ‘services’ such as climate regulation and air purification. To realise the benefits** of some natural assets, humans need to intervene (e.g. harvesting timber) but in other instances natural capital produces value through natural processes (e.g. trees reducing flooding). The Dodd Wood forest plan delivers ecosystem services and other non-market benefits including in biodiversity, climate change mitigation, water, people and landscape including public

health and well-being, productivity through increased carbon sequestration, species diversification and climate change resilience, landscape enhancement and increased native woodland and priority habitats.

Future species

The future species indicated below represents how the composition could be in 20 years’ time according to the design concept. This will be achieved through the promotion of natural regeneration in response to changing light levels through successive thinning operations.

Dodd Wood Future Species



UKWAS compliance table

	Forest Plan Area (ha)	Forest Plan Percentage	Forest District Area (ha)	Forest District Percentage
Total area	302	100.0%	85888	100%
Total wooded area	229	75.8%	58069	67.61%
Area of conservation value*	139	46.2%	11322	13.18%
Long-Term Retentions and Low Impact Silvicultural Systems	129	42.9%	10449	12.17%
Open space	50	16.6%	27819	32.39%
Transitional habitat	30	9.9%		
Natural Reserves	10	3.3%	873	1.02%

*Area of conservation value is the sum of designated areas including Ancient Woodland, Long-Term Retentions, Low Impact Silvicultural Systems, and areas of Natural Reserve.

The United Kingdom Forest Standard (UKFS)

The UKFS is the reference standard for sustainable forest management in the UK. The UKFS is supported by a series of guidelines which outline the context for forestry in the UK, defines standards and requirements and provides a basis for regulation and monitoring. These include General Forestry Practice, Forests and Biodiversity; Climate Change, Historic Environment, Landscape, People, Soil and Water.

Dodd Wood Forest Plan can demonstrate that relevant aspects of sustainable forest management have been considered and the stated objectives in Part 3 show how sustainable forest management will be achieved. The plan provides a clear means to communicate the proposals and to engage with interested parties and serves as an agreed statement of intent against which implementation can be checked and monitored.

In addition to conforming to general sustainable forest management principles UKFS is demonstrated in the following key areas:

Productivity	Productive potential is optimised through the delivery of the thinning programme, ecosystem services and other non-market benefits including in biodiversity, climate change mitigation, water, people and landscape.
Structure	Long term future species composition; 18% native species and 25% open ground meets UKWAS and UKFS minimum requirements for forestry. Long term structure will improve through linking of permanent broadleaved and open habitats.
Silvicultural	Low impact silvicultural systems (LISS) principles will be adopted with long term retention (LTR) of areas of broadleaved woodland as these develop. This will improve species and age class diversity over time.
Biodiversity	ASNW restoration and management of important habitats and species are the primary objective. Ecological connectivity achieved by extending and linking areas of native broadleaved woodland and open space will be enhanced ensuring that the area is managed with conservation and biodiversity as a major objective.
Climate change	LISS areas will minimise soil disturbance. Natural regeneration and species diversification will benefit forest resilience.
Landscape	The planning process refers to the Local Landscape Character Assessment to inform the appropriate woodland management and design.
Historic	Historic features are recognised and their safeguard will be incorporated into operational management.
People	The Forest Plan is consulted with individuals, the local community and organisations with an interest in the management of the area.

Water

Quality will be protected through adherence to Forest and Water guidelines as a minimum during any harvesting and forest management operations, quality will be improved through riparian broadleaf planting.

Longer term management proposals

The proposals in this plan continue to build on the success of previous plans to support the management of Dodd Wood with continued thinning under a Low Impact Silvicultural Systems (LISS) regime, which combined with small clear fells will provide timber to markets across the region. The feathering of the forest edges and transition between high forest and open habitat will reduce the landscape impact of Dodd Wood. As the stands on Long Side are felled, there is potential to expand the area of transitional open woodland between here and Dodd summit, and this can be explored during future revisions. LISS management will help encourage species diversity and can be incorporated into future plans. Public access will remain a major objective for the future management of Dodd Wood.