

AGENDA ITEM 7

APPENDIX 2

2019/0386/NOT

MANAGEMENT PLAN



Scottish
Forestry
Coilltearachd
na h-Alba

Crannaich Management Plan 2020 to 2030

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation

S e Coilltearachd na h-Alba a' bhuidheann-ghnìomha aig Riaghaltas na h-Alba a tha an urra ri poilteasaidh, taic agus riaghladh do choilltearachd



Scottish Government
Riaghaltas na h-Alba
gov.scot

Please refer to the Management Plan Guidance note for advice on how to complete your management plan.

You must have an approved Management Plan before you can apply for Forestry Grant Scheme funding.

1. Details

Management Plan Details			
Management Plan Name:	Crannaich Management Plan		
Business Reference Number:	290798	Main Location Code:	79/440/0184
Grid Reference: (e.g. NH 234 567)	NH891240	Nearest town or locality:	Carrbridge
Local Authority:	Highland		
Management Plan area (hectares):	2.43		
List associated maps:	See pages: 25-31		

Owner's Details			
Title:	Mr	Forename:	Graeme
Surname:	Hill		
Organisation:	Not applicable	Position:	Owner
Primary Contact Number:	07821163105	Alternative Contact Number:	01313322694
Email:	alasdairgraeme@gmail.com		
Address:	4 Craigcrook Grove		
	Edinburgh		
Postcode:	EH4 3QF	Country:	Scotland

Owner's Details

Title:	Miss	Forename:	Cicely
Surname:	Giles		
Organisation:	Not applicable	Position:	Owner
Primary Contact Number:	07851617312	Alternative Contact Number:	01313322694
Email:	cicelygiles@hotmail.com		
Address:	4/5 Waverley Park Terrace		

Edinburgh			
Postcode:	EH88EP	Country:	Scotland

Agent's Details			
Title:		Forename:	
Surname:			
Organisation:		Position:	
Primary Contact Number:		Alternative Contact Number:	
Email:			
Address:			
Postcode:		Country:	

Access Consent – Complete if applying for thinning		
<p>You are not obliged to give us consent to enter your land, however if we are denied access to your land, and cannot carry out an assessment because of this, we may reject your application. This consent is for access to assess this application as well as monitor compliance with any subsequent approval, where applicable.</p>		
Do you give consent for Scottish Forestry to access your property?	YES	

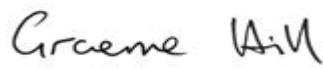

Town and Country Planning – Complete if applying for thinning		
Are any of the trees to be felled subject to a Tree Preservation Order?		NO
If YES please provide details:		
Are any of the trees to be felled within a Conservation Area?	YES	
If YES please provide details: The woodland is in the Cairngorms National Park and is a PAWS site.		

Declarations – Complete if applying for thinning

I hereby apply for a permission to fell the trees described in this application and I certify that:

- I am the landowner or an occupier of the land with written permission of the landowner;
- Where the landowner is a business, I am authorised to sign legal contracts on behalf of that business;
- If I am acting on behalf of the landowner or occupier, I have been mandated to do so;
- Any necessary consents from any other person(s) if required, have been obtained;
- I have made the necessary checks with the local planning authorities regarding Tree Preservation Orders and Conservation Areas;
- I have notified all stakeholders that may be affected by the felling in this application and sought their views prior to submitting this application;
- I hereby acknowledge that Scottish Ministers may process any of my personal data contained in or relating to this application in accordance with the terms of Scottish Forestry's Privacy Notice, a copy of which is available at www.forestry.gov.scot;
- I have read and understand this application fully and, to the best of my knowledge and belief, the information given in this application is complete, true, and accurate;
- I accept that any false or misleading information provided in this application constitutes an offence and may result in any felling permission based on this application being revoked at any time.

[This application may only be signed by the owner of the land or the occupier of that land where they have written permission to do so. For land owned by a business it must be signed by someone with the authority to sign legal contracts on behalf of that business. If you are an agent signing this on behalf of the aforementioned you must append a copy of your mandate.]

Signed:	Print:	Date: 15/07/2019
	Graeme Hill	
	Cicely Giles	

Approval - to be completed by Scottish Forestry staff:

Management Plan Reference Number:		
Plan Period: (ten years) (day/month/year)	From:	To:



Scottish
Forestry
Coilltearachd
na h-Alba

Management Plan

Operations Manager Signature:		Approval Date: (dd/mm/yyyy)	
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2. Woodland Description

Give information about the following:

- past management of the woodland
- current species and ages
- statutory and non-statutory constraints (e.g. designations, archaeological interests)
- existing or potential public access
- woodland protection

Use the Land Information Search to help you complete this section. For more detailed information on the Native Woodland Survey of Scotland use the Scottish Forestry Map Viewer found on our website: forestry.gov.scot

2.1 Maps required

Provide maps to support your plan, as outlined in the guidance note. Please list all of the maps that you are including with your management plan in section 1 Management Plan Details.

2.2 History of management

The Scots Pines were planted in 1962 and have subsequently received some thinning with trees spaced from 0.5-3m apart. Several rides, developed to provide access for thinning, run parallel and perpendicular to the main track. We have not been able to access records of when the thinning took place.

2.3 Species and age

The woodland consists entirely of Scots Pine trees which were planted in 1962. There is one 'Granny' Pine, a remnant of the original ancient woodland. The majority of the woodland is the same age and some natural regeneration has occurred since planting. However, there is no evidence of trees less than 15 years old, which is possibly due to deer browsing. There is an understory of ling heather, blueberry, cowberry and mosses including glittering wood moss (*Hylocomium splendens*) and ostrich plume feather moss (*Ptilium crista-castrensis*), which are ancient pinewood indicator species.

2.4 Constraints and designations

The woodland sits within the Cairngorm National Park in an area regarded as PAWS (Plantations on Ancient Woodland Sites). It is classed as an upland acid native pinewood and has a NVC (National Vegetation Classification) of W18 native pinewoods. The woodland is currently within a Scots Pine seed exclusion zone so any new planting would either have to be grown from seed from the wood or purchased from a supplier within the seed exclusion zone 201. The woodland is currently within 1km of a capercaillie lek.

2.5 Public access

The public have the right to roam across all areas of the woodland. The

management plan is not expected to affect public access to the woodland or the main tracks.

2.6 Woodland Protection

Plant Health (including tree health and invasive or noxious plants)

The trees within the woodland currently appear to be in good health. There is a threat of dothistroma septosporum (red band needle blight) to pine trees. As the woodland was a plantation and has not received much thinning, the woodland is still heavily stocked in areas, which increases the risk of the disease developing. Recently, an adjacent area of woodland consisting of lodge pole pine was felled for this reason.

Thinning the trees would decrease humidity levels and increase the airflow within the stand making the microclimate less favourable for harmful pathogens.

The woodland is currently within a Scots Pine seed exclusion zone so any new planting would either have to be grown from seed from the wood or purchased from a supplier within the seed exclusion zone 201.

Deer, Livestock and other mammals

The understory is extensively browsed by deer which impacts the abundance of blaeberry and cowberry and also could be responsible for the lack of natural regeneration for the past 15 years. We understand pine martens, red squirrels and mountain hares are present locally.

Grey Squirrels

We are unaware of any grey squirrels. We have seen red squirrels within the woodland.

Water & Soil (soil erosion, acidification of water, pollution etc.)

The soil consists of glacial moraine of well-drained sand and gravel with a thin layer of acidic topsoil. We are unaware of any water pollution.

Environment (flooding, wind damage, fire, invasive species etc.)

The area is not subject to flooding but there is evidence of trees damaged by the wind. The woodland is vulnerable to damage or destruction by fire. We are unaware of any invasive species. Our woodland shares an access track, which could be damaged by large machinery carrying out commercial forestry operations in the surrounding area.

Climate Change Resilience (provenance, lack of diversity, uniform structure)

The woodland consists entirely of approximately fifty-year old Scots Pine trees with one 'Granny Pine'. The majority of the woodland is the same age with some natural regeneration occurring since planting. However, possibly due to deer browsing, there is no evidence of trees less than approximately 15 years old. Overall, therefore, the woodland is of fairly uniform structure and is lacking diversity in species and age. Increasing diversity will improve the woodland's resilience to invasive pests and diseases that thrive in warmer climates caused by global warming and other gradual changes in woodland communities brought about by climate change.

3. Vision and Objectives

Tell us how you intend to manage the woodland in the long term and your goals for its development.

3.1 Vision

Describe your long term vision for the woodland(s).

Our long term vision for Crannaich is to restore the woodland to a semi-natural state and increase its ecological value. We plan, over a 10 year period to thin the existing woodland; plant native broadleaf trees; create a variety of habitats within the woodland; and support opportunities for natural regeneration. As a result we hope to enhance woodland biodiversity by supporting native flora and fauna and reduce the potential risks of disease to the woodland and protect against climate change.

3.2 Management objectives

Give your objectives of management and also how you will manage the woodland sustainably. Your objectives should be specific and you should also be able to measure their outcomes.

No.	Objectives (including environmental, economic and social considerations)
1	Increase health of forest for future sustainability.
2	Increase species diversity.
3	Create areas of varied habitat within the woodland.
4	Promote natural regeneration to develop a range of tree ages.
5	Support and protect species present in and nearby the woodland.

4. Stakeholder Engagement (if required)

This may be required depending on the work you intend on carrying out in the woodland and the constraints or designations that have been identified.

Individual/ Organisation	Date contacted	Date feedback received	Response	Action
Woodland Trust	17/11/18	4/02/19	See Appendix 1	Incorporate response into vision and objectives.
RSPB	18/10/18	18/10/18	See Appendix 2	Incorporate response into vision and objectives.
CNPA	12/11/18	12/11/18	See Appendix 3	Incorporate

				response into vision and objectives.
Trees for Life	17/10/18	15/02/19	See Appendix 4	Incorporate response into vision and objectives.

5. Analysis and Management Strategy

Analyse the information from the previous sections and identify how to make best use of your woodland and its resources to achieve your objectives.

5.1 Constraints and Opportunities

Using the table below analyse any issues raised or relevant features within your woodland and record the constraints and opportunities.

Feature/Issue	Constraint	Opportunity
Capercaillie near to site.	Mitigates against deer fencing to protect newly planted trees.	Use protective tree tubes and stakes. Provide shelter within understory and increase foraging resources.
Wood Ant present within the wider Baddengorm Woods.	Not to disturb or shade nests during forestry work.	Provide foraging resource by planting native broadleaf trees.
Dothistroma septosporum (red band needle blight).	Poses threat to Scots pine.	Sensitively thin tightly spaced trees to increase airflow. Reducing humidity through the woodland will make it a less favourable microclimate for harmful pathogens. Introduce native broadleaf trees to increase diversity.
Scots pine plantation.	Lacks species diversity.	Plant native broadleaf trees to enhance diversity.
Even-aged plantation.	Lacks structural diversity.	Create space for natural regeneration.
Crested tit and crossbill present within the wider Baddengorm Woods.		Increase areas of deadwood to support invertebrates and

		birdlife.
Dominant heather cover in open areas.	High heather crowds blaeberry out and restricts opportunities for natural regeneration.	Swipe some areas of overgrown heather to allow space for other species and create bare ground for capercaillie chicks to dry off.
Blaeberry Bumble Bee (<i>Bombus monticola</i>) present within the wider Baddengorm Woods.	Not to disturb nests during forestry work.	Maintain and create a range of habitats within the woodland including tree roots and hummocks, which the bees like particularly.
Relatively small size of plot.	Limits possible range of operations/ interventions.	Co-ordinate management plan with other plot owners to work more effectively to improve biodiversity.

5.2 Management Strategy

Following your analysis, provide a broad statement describing your management strategy. Consider all aspects (economics, access, biodiversity, landscape) and pay particular attention to your silvicultural strategy for meeting your management objectives.

Crannaich is classed as a PAWS site and is an upland native pinewood which consists of entirely Scots Pine trees planted in 1962. The majority of the woodland is of the same age and of a fairly uniform age and structure. Some natural regeneration has occurred since planting, however there is no evidence of trees less than 15 years old. Since planting the woodland has received some thinning with trees now spaced from 0.5-3m apart. There is an understory of ling heather, blaeberry, cowberry and mosses.

Our long term vision for Crannaich is to restore the woodland to a semi-natural state and increase its ecological value. We plan, over a 10 year period to thin the existing woodland; plant native broadleaf trees; create a variety of habitats within the woodland; and support opportunities for natural regeneration. As a result we hope to enhance woodland biodiversity by supporting native flora and fauna and reduce the potential risks of disease to the woodland and protect against climate change.

Thinning:

Scots Pine plantations are at risk from *dothistroma septosporum*. To reduce the chance of developing this disease and to increase the health of the woodland for the future, we will use the method of Continuous Cover Forestry to transform the even-aged plantation to create a structurally,

visually and biologically diverse woodland by thinning individual trees in areas where they are tightly spaced whilst maintaining woodland cover. This will increase airflow, reducing humidity through the woodland making it a less favourable microclimate for harmful pathogens, thereby reducing risk of disease and improving resilience against future climate change. Please see p28 for map detailing thinning area.

Planting of native broadleaf trees:

The woodland consists entirely of Scots Pine trees and therefore lacks species diversity. By planting native broadleaf trees we hope to support a variety of mammals, birds and invertebrates by providing shelter and a foraging resource.

We plan to undertake successive planting of approximately 800 trees over a period of 10 years. We will plant a variety of native broadleaf trees including birch, rowan and aspen. Mixed planting will take place within rides, along some edges and in clearings and will be of varied stocking density. To protect the saplings from deer browsing we will use tree tubes and stakes. When the saplings have outgrown the tree tubes we will create 'pens' to protect them from further browsing.

The woodland is currently within a Scots Pine seed exclusion zone so any new planting of Scots Pine would either have to be grown from seed from the wood or purchased from a supplier within the seed exclusion zone 201.

The planting of other native species would also need to be sourced from the same zone (201).

Please see p29 for replanting map.

Create areas of varied habitat within the woodland:

The woodland is an even-aged conifer plantation with a generally closed canopy and subsequent shaded understory of heather, blaeberry and cowberry. In order to increase the range of habitats within the woodland we will develop areas of deadwood within the woodland. This richer environment will be able support a broader range of invertebrates, birds and mammals in the future.

The woodland has a lack of deadwood. We plan to create a range of deadwood features by ring barking and winching, leaving standing and fallen deadwood and creating brush piles of fallen branches into a variety of locations and features both in sunshine and shade. By creating more diverse habitats we will increase the number of invertebrates, which will in turn provide food and nesting opportunities for birds including the crested tit and crossbill. This will also support the blaeberry bumble bee which nests in tree roots and hummocks, the wood ant which creates nests in open, sunny areas and the capercaillie which would benefit from both dense understory areas for shelter and open areas for drying chicks and as a food source by increasing blaeberry growth.

Promote natural regeneration to develop a range of tree ages:

As the woodland is of fairly uniform age we would like to encourage natural regeneration to increase the age range and improve the woodland's resilience to disease and climate change in the future.

Over the last 15 years there has been no natural regeneration, which could be due to deer browsing and dense heather cover in open areas. We plan to manage patches of overgrown heather by swiping to create space on the woodland floor. We hope this will encourage natural regeneration of Scots pine trees and increase areas of blueberry, which is a vital food source for the capercaillie.

6. Management Proposals

Tell us the management operations you intend to carry out over the next 10 years to help meet your management objectives for the woodland. The submission of this plan will be considered as an application for permission to thin the woodland over the 10 year plan period, subject to the completion of Table 1 and the submission of appropriate maps. If you intend to carry out other types of felling you must apply for permission separately.

6.1 Silvicultural Practice

Outline silvicultural practice and management prescriptions. Include any past management practice that is relevant and the strategies to address the issues identified in section 5.

1. We will use the method of Continuous Cover Forestry to transform the uniformly aged plantation and create structurally, visually and biologically diverse woodland by sensitively thinning individual trees in areas where they are tightly spaced whilst maintaining woodland cover. Any significant forestry works will be undertaken outwith the capercaillie breeding season (mid-March to early August).
2. Approximately 800 native broadleaf trees will be planted over a 10 year period, with tree tubes and stakes used to protect the saplings from deer browsing. Stocking density will be varied by the inclusion of 'thickets' and more widely spaced areas with trees up to 3 meters apart. After tree tubes have been exceeded fenced 'pens' will be created to protect the saplings from further browsing.
3. Increase deadwood features by creating new standing deadwood, preserving current standing deadwood, leaving fallen deadwood and creating brush piles of fallen branches in a variety of locations in both sunshine and shade.
4. Preserve the 'Granny Pine' by selective staggered thinning of pines surrounding the tree.

6.1 Thinning Prescription

If you are applying for thinning, you must provide a map as per Appendix 2 of the Forest Plan Applicant's Guidance. The map must show all areas proposed for

thinning. Provide any further details required here in reference to your map(s).

Please see p28 for proposed thinning map.

Table 1 – Thinning

This table shows the total management plan area as well as the thinning compartments proposed for management. The felling site/compartiment in this table must be shown as the same on the thinning map(s). Please select method of displaying thinning regime:

Pre/Post stocking density
 Pre/Post basal area
 Volume to be removed

Total Plan Area:		2.43	hectares							
Thinning Compartment	Area (ha)	%	Species to be felled (one per row)	Age (Years)	Marking of Trees	No of Trees	Volume (m ³)	Thinning Density (per ha)		
								Pre	Post	Total
Area A (Marked in yellow on map p28).	2.43	100	Scots Pine	40-60 years	Fellers select	300	166	1400	1275	125
Total Area	2.43	100					Total Volume m³	166	Total to be removed:	125

Appendix 1: Feedback from the Woodland Trust



**Report for Cicely Giles & Graeme Hill on a 2.4 ha (6 acre) section of
Baddengorm pinewoods Grid ref: NH 891 240**

Site known as 'Maon Wood'



Prepared by Alan Crawford

'Outreach Advisor' for Woodland Trust

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Introduction

This survey & report was carried out by Alan Crawford in 2018, outreach advisor for the Woodland Trust at the request of Cicely Giles & Graeme Hill.

The Woodland Trust's outreach team offer advice to private landowners on woodland creation opportunities and on management of ancient and native woods of interest. This report focuses on existing woodlands

Woodland Trust outreach work

Woodland Trust has a vision for a UK rich in native woods and trees, benefitting both people and wildlife. To achieve this vision, we support woodland and forest owners and managers. We give advice and support to maintain the value and increase the resilience of native woodlands, protect them from threats, and expand and connect them wherever possible.

All woodland is special. The Woodland Trust recognises that some woodlands especially ancient woodlands, are particularly rich in biodiversity while others contribute to the economy or to amenity value. Many woodlands and forests are multi-use and we believe that by working with the owners and taking their objectives into account, it is possible to achieve substantial long-term benefits for all.

We work on a diverse range of existing woodland sites, and particularly focus on sites where:

- There is a threat to ancient woodland, such as conifer afforestation (PAWS), invasive species, a lack of regeneration or tree disease.
- There is a potential to increase the diversity and resilience of woodland against threats like climate change through positive management.

[Appendix 1 shows a summary diagram of the types of woods we would look at. Appendix 2 describes a list of resilience outcomes we would consider when assessing sites]

Summary site description

'Maon Wood' is a 2.4 ha section of Baddengorm woods, close to Carrbridge. Grid ref: NH 891 240. The site is one of 11 plots sold or up for sale through Woodlands.co.uk. (See map 1 below).

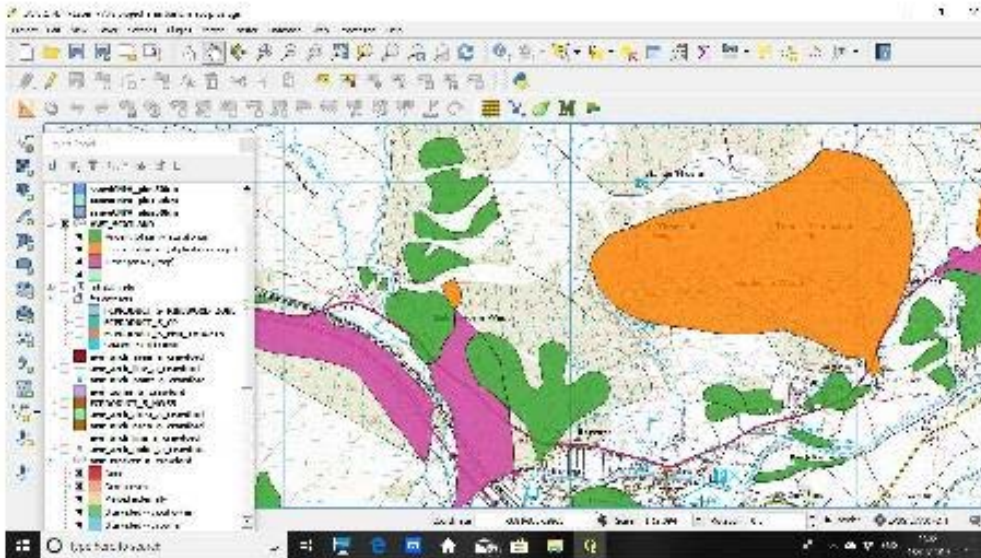
It is PAWS, a Planted Ancient Woodland Site, with the latest planting of a stand of Scots Pine carried out in 1962. The canopy is almost all pole and early mature scots pine, with slight variation in growth rates, and slight variation in stems per hectare density. A powerline and its associated wayleave form the north-east boundary of the site. The site is a flat, free draining W18 native pinewood, with heather, blueberry and bulky upland mosses (inc. ancient woodland indicator 'Ptilium Crista Castrensis') all common in the ground flora. There is some but not much deadwood present.

This plot and the other 10 plots (sold or up for sale) are part of a much larger contiguous area of native pinewood, much of it ancient. (See maps 2 & 3 below)

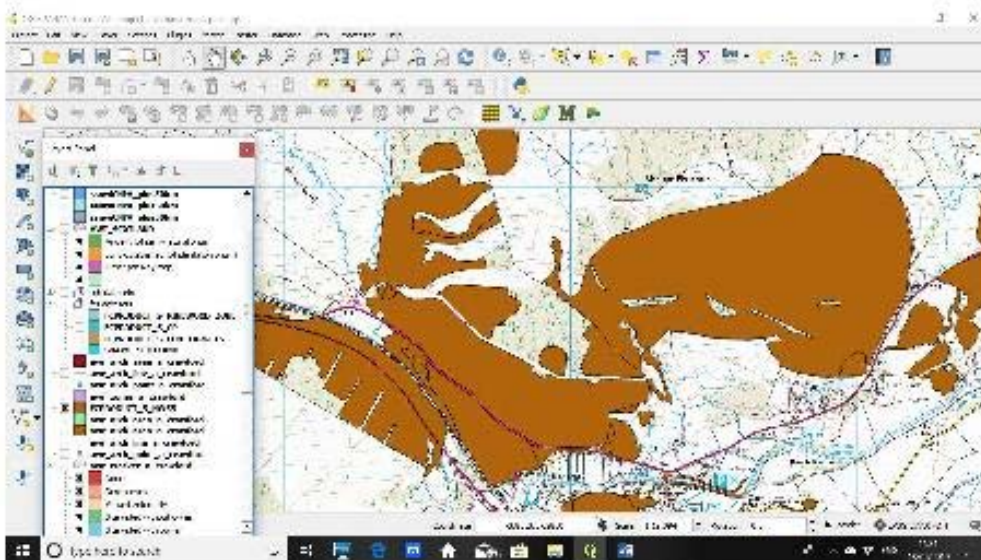
Map 1- Location maps for Maon Wood, Baddengorm, nr Carrbridge



Map 2 - showing Ancient Woodland Inventory Sites in Baddengorm area, north & west of Carrbridge



Map 3 - showing area of native woodland as assessed by the Native Woodland Survey of Scotland (nwss) in Baddengorm area, north & west of Carrbridge



Current pressures on the wood

The most significant pressure on the wood is the level of herbivore impacts which are moderate-high. One consequence of this is a lack of younger trees & shrubs in the understorey. There are some broadleaves that look to have been planted in adjacent plots, and protected by tubes or wire mesh. In most cases these trees have been browsed if accessible to deer.

There are no obvious signs of significant impact from pests and diseases, invasive species, or non-native trees, but it would of course be worthwhile to remain aware of the potential of such pressures. And over time climate change may also affect the resilience of the wood.

Opportunities & Constraints

In terms of potential woodland management operations, the site is accessible - it is flat, near to a main road, and there are good quality tracks nearby. Should thinning work be undertaken there is also good access to markets, as well as the opportunity to utilise some timber on site.

There are also opportunities to increase species and structural diversity and to make some biodiversity gains, though it is important to understand that improving biodiversity in an area does not mean that all potential species should be present in all sites. In this regard, and in some other regards, the opportunities for improving the biodiversity of the site, and for utilising timber and other products from the site would be significantly improved if a management agreement could be agreed between the owners of this site and the other 10 sites that have either been sold or are up for sale in the same vicinity. Related to the above, the largest constraint in terms of the range of operations/interventions that would be possible would be the relatively small size of the site.

Management recommendations

As with many sites there are options in terms of management going forward, with each having things to commend them, but also potential risks associated with them.

Option 1 – No intervention

Option 2 – Carry out thinning work, particularly focusing in the areas with higher numbers of stems per hectare, and where the crowns of neighbouring trees are competing for light. This would allow more light onto the woodland floor, and create more opportunities for any young broadleaves to become established. It would also allow the remaining pines to put on greater incremental growth.

Option 3 – Creation of a small clearing/extension of existing small clearing on edge of property. Clearing could then be left as open land habitat, or planted with native broadleaves.

Option 4 – Protect any regenerating trees as and when they appear.

Option 5 – Enrichment planting on minor species unlikely to naturally regenerate here eg. Aspen. And if aspen was planted it should be planted where it has sufficient light levels to thrive.

Option 6 – Retain what deadwood there is on site, and consider deadwood creation, either by 'felling an occasional tree to recycle' (say in areas where thinning was appropriate), or by ring barking to create standing deadwood.



Photo showing a small clearing on the edge of the property, which could be made larger and left as open ground habitat, or could be planted with native broadleaves.



Photo showing a small amount of deadwood on site. Deadwood creation elsewhere on site is a possibility



*Photo showing a situation where thinning may be appropriate,
as crowns of adjacent scots pines are beginning to compete with each other for light*

Summary & Conclusions

Reducing the impact from herbivores on site is going to be difficult, given that controlling deer numbers is unlikely to be something the owners can control themselves, and given that as the woodland is to be used as a retreat/recreational space, deer fencing seems inappropriate. Although not ideal, protection of any regenerating trees or of any enrichment planting could be done with stakes & tubes, or by use of very small scale post & rail fences, or small wire mesh enclosures.

Management options and the value of any management interventions would be greatly enhanced if there were the possibility of collaborating with some or all of the other plot owners in the area, and before any firm decisions were made about this plot, I feel that it would be worthwhile spending some time to explore whether this might be feasible.

If that proves not to be feasible and management decisions were to be made for this plot at Moan Wood in isolation from the other plots, then my thoughts would be to take some time to get to know the site over the next number of months, seeing it through each of the seasons, before finalising a management plan. That would allow time to understand where different features are within the plot, and may help determine where different interventions should take place.

The management options on p5 are not mutually exclusive. Light thinning; deadwood creation; and protection of regenerating young trees from browsing would be the interventions most likely to enhance the condition of the wood. Enrichment planting of native broadleaves is also worth considering assuming they could be protected from browsing, and light levels are appropriate to allow them to become established.

Appendices

- 1 – Ancient & native woods of interest (including diagram showing sites we would look at)
- 2 – Resilience outcomes that are important to consider when undertaking survey work.
- 3 – Glossary of terms

Appendix 2: Feedback from RSPB

Hi Cicely and Graeme

Great to meet you today. Below I have provided a summary of what we talked about.

Capercaillie biology

- Their breeding season is between March and August but the most sensitive time for disturbance is March-May as this is when they are lekking
- They are aboral (live in the trees) in winter and prefer scots pine needles
- They rely on blaeberry in the spring/summer as adults eat the plant/berries and this plant hosts invertebrates which is important for chicks in their first month
- Other food sources in these months include larch trees, bog sedges (especially cotton grass) and cowberry

Potential habitat recommendations

- Avoid disturbing forestry work at least during the lek season. Also avoid entering the lek area during this time (area north of wayleave)
- Thin forest to create a variable density structure e.g. some small open glades with denser areas for cover. Priority is to ensure that blaeberry is growing in good numbers
- Leave older trees with long side branches and some standing dead trees
- If regenerating trees are located at a young age, consider creating a protective barrier from grazing
- Swipe heather in areas where it is becoming overgrown. Start this at a small scale. This will promote blaeberry and create bare ground for chicks to dry off
- If trees are planted then stick to native species in small numbers e.g. birch
- If a path is created ensure it is as discrete as possible (e.g doesn't link to existing forestry tracks) to prevent members of the public using it.

Contacts

Angus Dixon (forestry manager) grovesforestry@gmail.com

Also worth contacting Abernethy reserve but bear in mind they are currently going through a lot of staff changes so may be a while before they respond.

Information – I have attached the management booklet Ellie showed you.

Funding

Most forestry funding comes under SRDP Forestry grant schemes -

<https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/forestry-grant-scheme/>. If you choose 'Woodland Improvement' then 'Habitats and Species' there is a range of options that could be funded including heather swiping.

Any additional questions please don't hesitate to ask.

Best wishes, Molly

Molly Doubleday

Capercaillie Advisory Officer

North Scotland Regional Office RSPB North Scotland Regional Office, Etive House, Beechwood Park, Inverness, IV23BW Tel 01463228816 Mobile 07720599424

Appendix 3:

Notes from phone call with David Hetherington CNPA 12/11/18

We discussed our woodland and how we could manage it and David advised us:

- To look at the Cairngorm National Park Authority Forest Strategy which is a document providing strategic direction on future forest management and the restoration of woodlands in the Cairngorms National Park over the next two decades (from September 2018).
- To read an article that he had written 'Conservation of Mountain Woodland in the Cairngorms National Park' (August 2018).
- That there is a new project locally: Cairngorms Capercaillie Project. The Carrbridge Ranger is Emma Rawling.
- About woodland management; crown levels and light intensity.
- That if we wanted to introduce different species that aspen, rowan, willow are fast growers but palatable for deer whereas scots pine is slower growing and less palatable.

Email feedback from CNPA 12/11/18

Hi Cicely, Hi Graeme

It was good to chat to you just now, Graeme. It sounds like you've been contacting quite a few relevant and potentially useful people so far. Unfortunately I'm not available during November 20-23, but do get in touch again if you need a CNPA perspective on anything or need some pointers on who else to speak to. Incidentally, the 2018-2023 Cairngorms Nature Action Plan has recently been out to public consultation. You can get some idea of what it will look like by checking out the draft version: http://cairngorms.co.uk/wp-content/uploads/2018/06/CNAP18-23ConsultationFinalSP_Web-3.pdf There are quite a few woodland-related habitat and species actions in it so far.

I've also attached a recent article I wrote for *British Wildlife* magazine on mountain woodland conservation in the Cairngorms, which might help you to place your 6 acres into the wider context of native woodland conservation across the national park.

Best wishes,

David

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Grantown on Spey, Scotland
PH26 3HG

01479 870516

[David Hetherington on LinkedIn](#)

Appendix 4: Feedback from Trees for Life 15/02/2019

Notes from meeting with Georgie Brown 15/02/19
georgie@treesforlife.org.uk

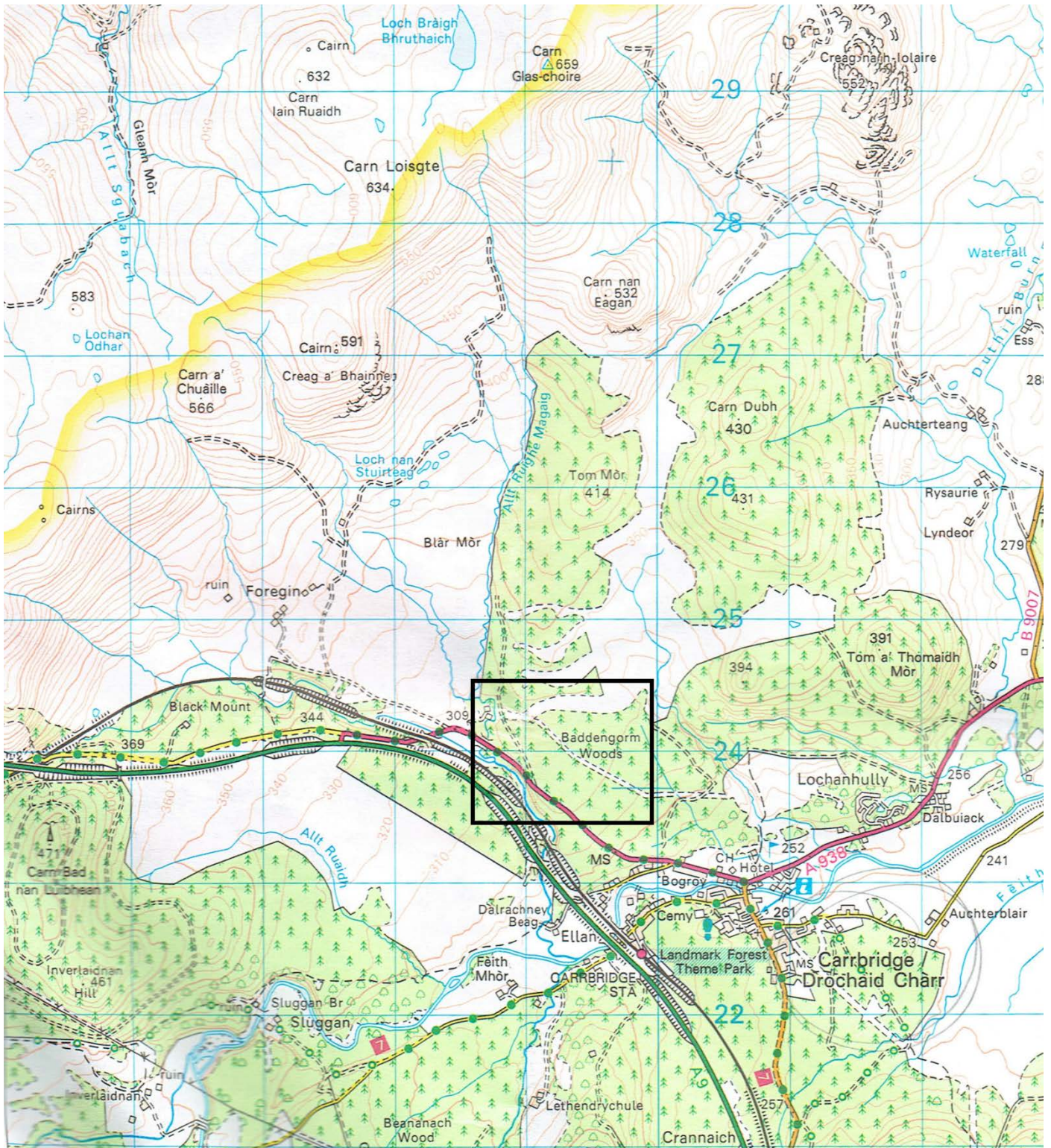
We met with Georgie and walked around the perimeter of the woodland together. We discussed how the different services Trees for Life could offer and about how it would be best to manage the woodland which currently lacks in diversity in species and tree age.

Topics that we discussed are:

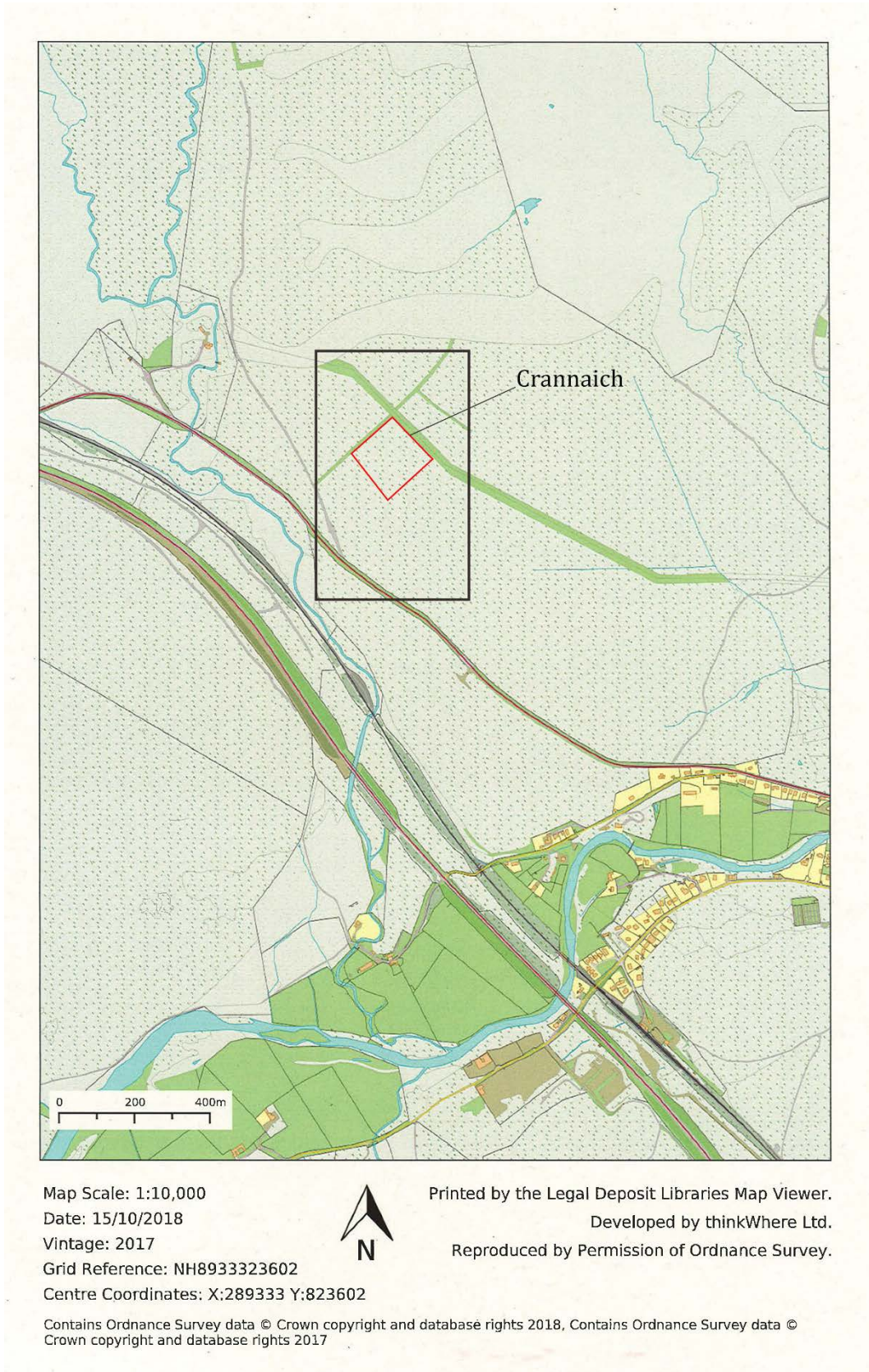
- Increasing the light levels to the understory to allow for natural regeneration and for newly planted trees to grow.
- Thinning. We discussed the different ways in which we could thin the woodland; group thinning to create a clearing or more dispersed thinning which would have less of a visual impact. Group thinning would provide the best opportunity for natural generation but may not look visually appealing, whereas more dispersed selective thinning would maintain the appearance of the plantation but might not left enough light in to allow for sufficient natural regeneration. To use the continuous cover method to retain canopy cover throughout thinning and replanting.
- Scarifying. We discussed how scarifying the heather would help other plants and trees to grow. Also discussed the possibility of taking the understory back to the mineral soil layer to help with natural regeneration.
- Increasing diversity. We discussed that increasing species diversity within the woodland would be beneficial and would help the plantation become more natural in structure and appearance-supporting more wildlife, flora and fauna.
- Planting. Species that would be suitable for the site are; birch, rowan, aspen, juniper and holly. Could plant in areas that currently have an adequate light source; in the clearing, on the woodland edges and at the ends of the rides.
- Deer browsing. We discussed that deer browsing is the biggest threat to being able to increase species diversity in the woodland. We talked about different ways that we would manage this; fencing and trees tubes. We agreed that fencing the entire plot would not be possible due to local capercaillie presence and that small pockets of fenced 'pens' might be an option to protect a small stand of newly planted trees and regenerating pines. Tree tubes would be suitable for the protection of broadleaf trees.
- Deadwood. We agreed that the woodland doesn't have a lot of deadwood and that it would be beneficial to increase these levels.

- Areas for management; to avoid thinning in the woodland edges so as not to disturb the wind break, to enlarge the current clearing to increase light levels, to soften the rides by selective thinning to give a more natural appearance.

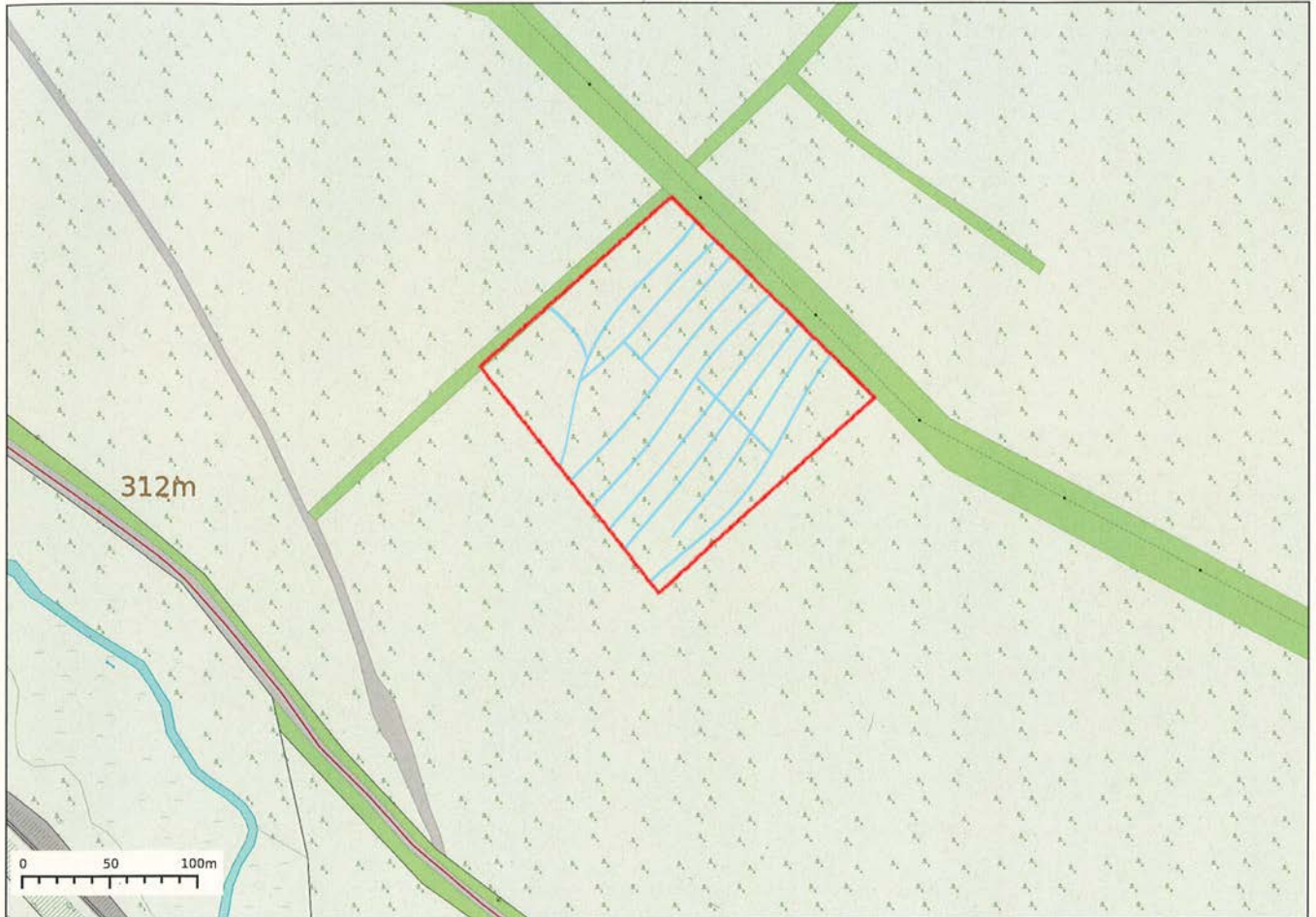
Location Plan 1:50 000



Location Plan 1:10 000



Site Plan 1:2500



Map Scale: 1:2,500
 Date: 15/10/2018
 Vintage: 2017
 Grid Reference: NH8921223942
 Centre Coordinates: X:289212 Y:823942

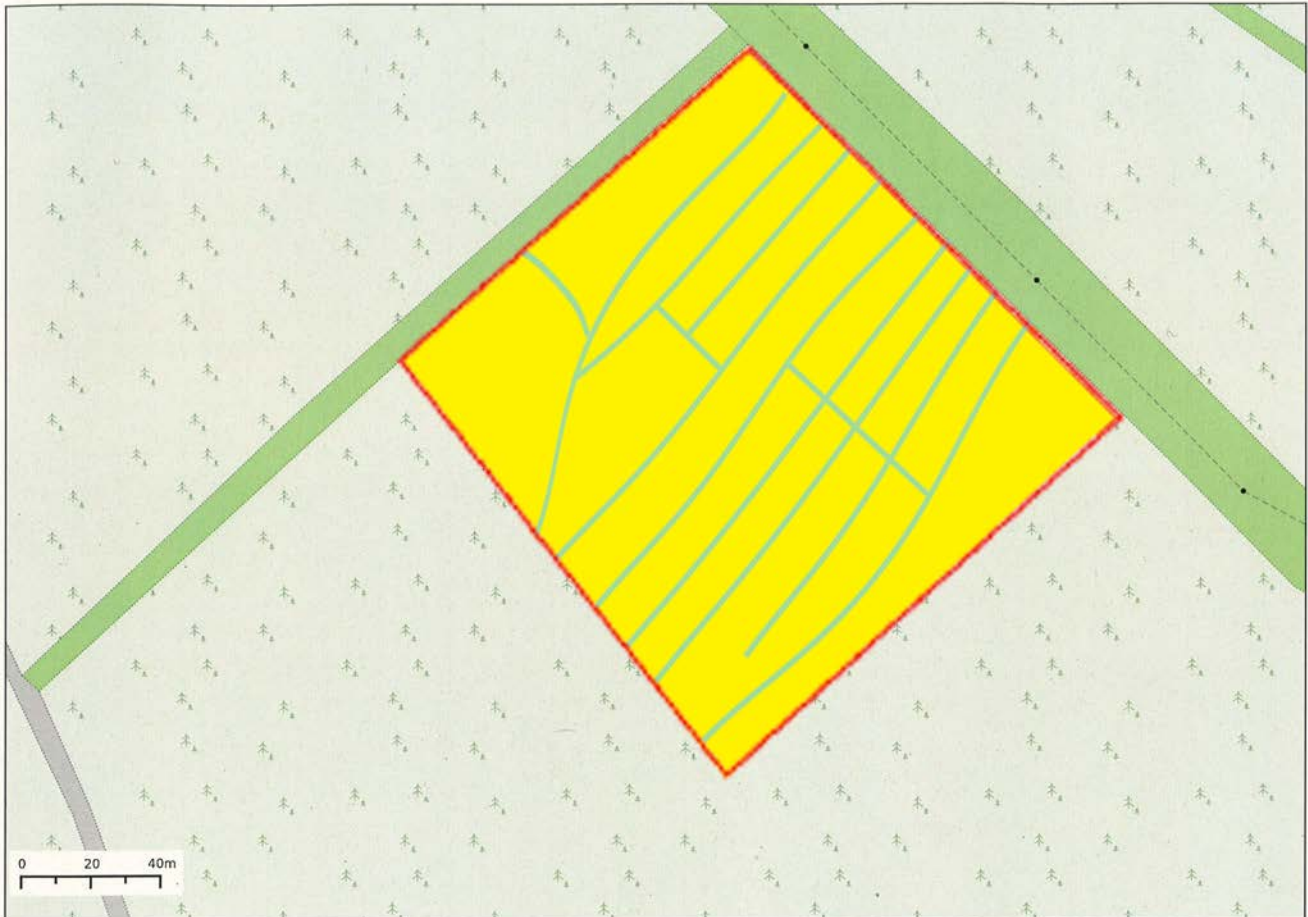


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Key:
 Red- Crannaich boundary
 Blue- rides

Site Plan 1:1250 with proposed thinning area



Map Scale: 1:1,250
 Date: 15/10/2018
 Vintage: 2017
 Grid Reference: NH8919423973
 Centre Coordinates: X:289194 Y:823973



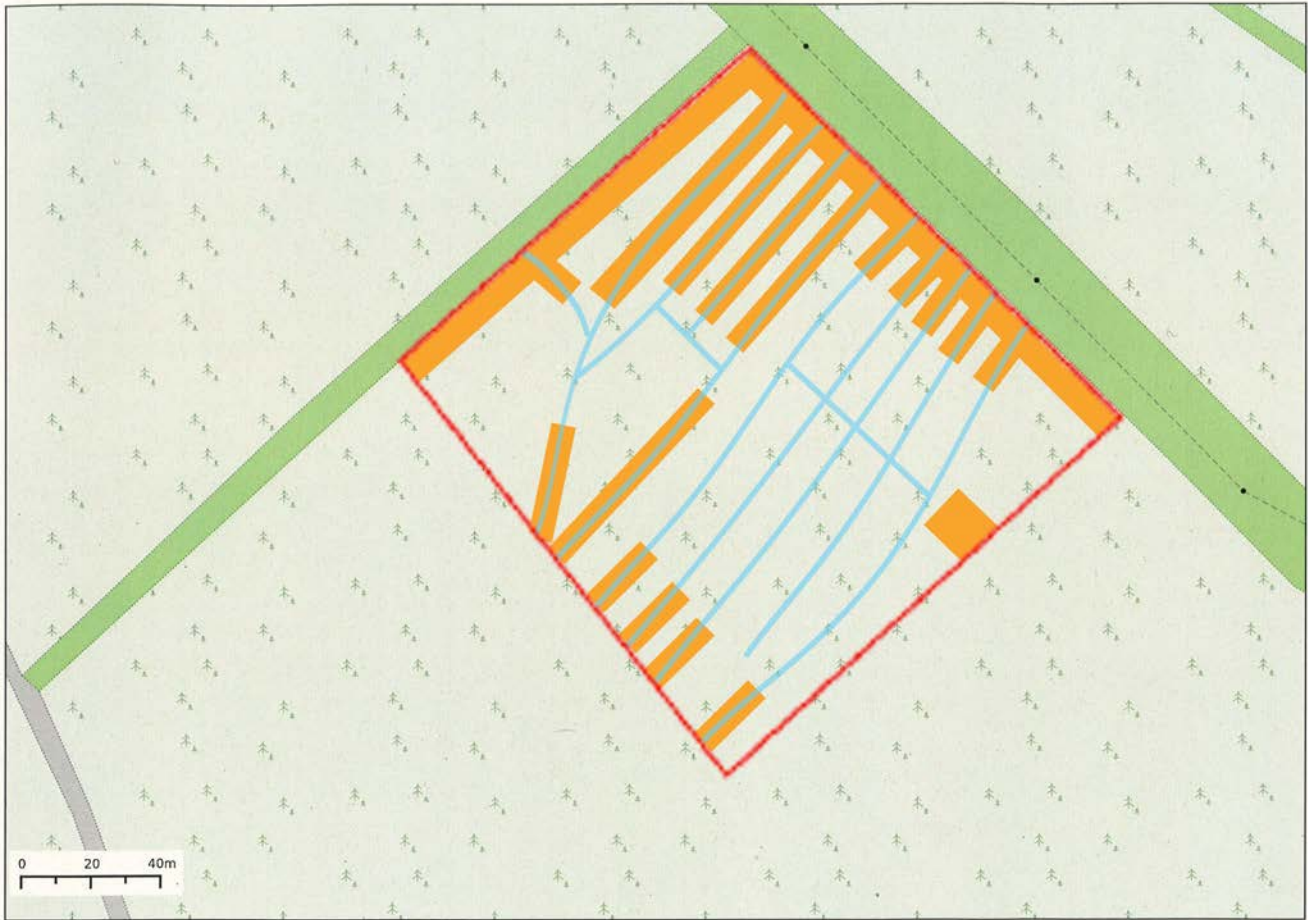
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Key:
 Red- Crannaich boundary
 Blue- rides
 Yellow- thinning area

N.B. Due the relative small sized plot selective thinning will take place across the whole 2.43 hectares, focusing on reducing stand density where trees are tightly spaced.

Site Plan 1:1250 with proposed replanting areas



Map Scale: 1:1,250
 Date: 15/10/2018
 Vintage: 2017
 Grid Reference: NH8919423973
 Centre Coordinates: X:289194 Y:823973

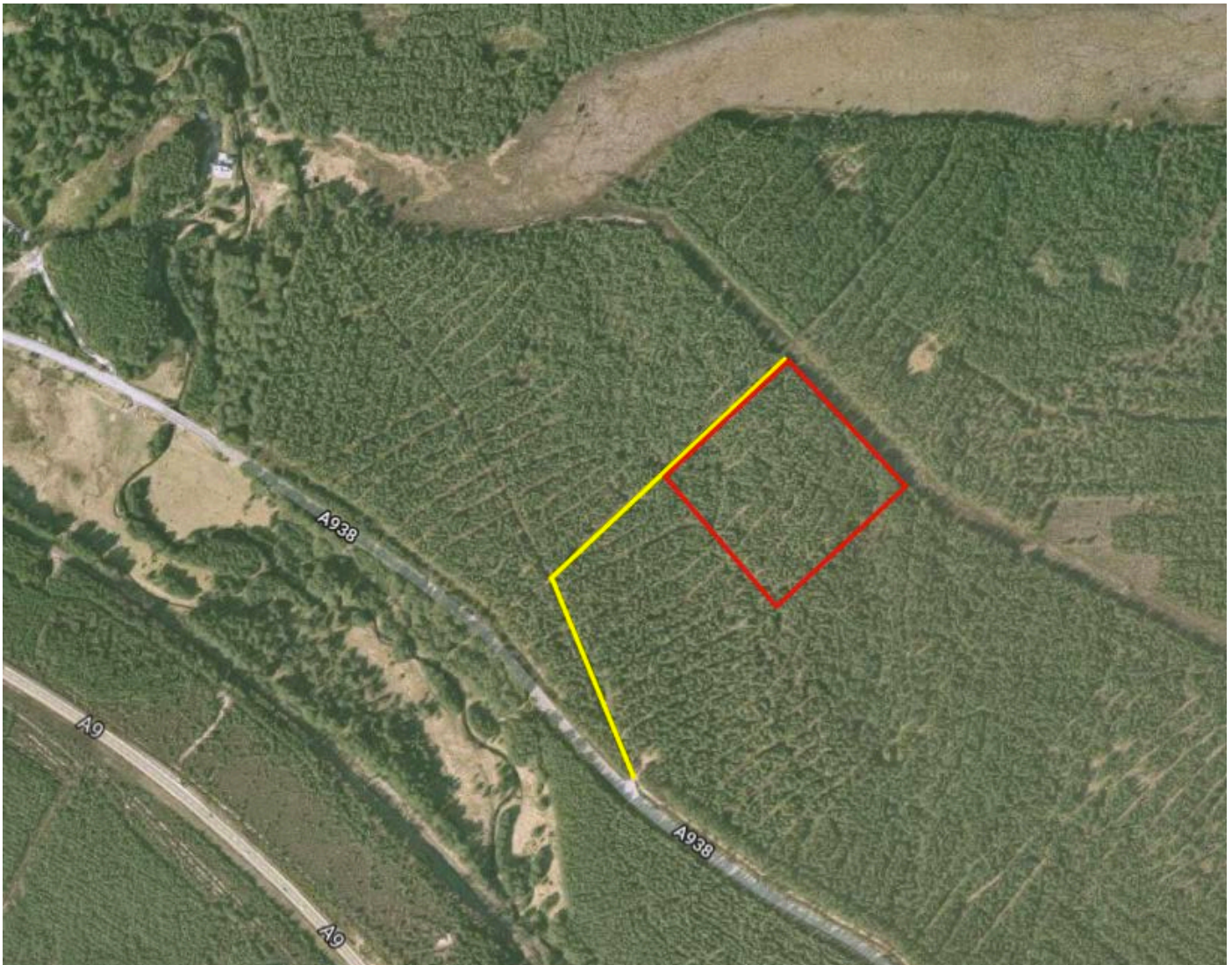


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Key:
 Red- Crannaich Boundary
 Orange- replanting areas

Site Plan (showing boundaries and access track)



Key:
Yellow= access track
Red= outline of Crannaich

Close Up Site Plan (showing boundaries, access track and rides)



Key:

Yellow= access track

Red= outline of Crannaich

Blue= rides

Example of densely planted area:



Example of a ride:

