Dumyat Estate

Deer Management Plan

2022 - 2027

Photo 1: Dumyat Estate – looking NW – photo by FFC

Background and history

Dumyat is an iconic hill located near to Bridge of Allan, Stirling. Dumyat's summit offers commanding views across most of Central Scotland. The whole site extends to 480 hectares, of which up to 190 hectares will eventually become a diverse native woodland. The site has a rich history and Dumyat is thought to originate from the words Dun meaning hill fort. The site has expansive views of the Forth Valley below.

Recently, the site has been used for sheep and cattle grazing and for public access (to reach the summit). Historically the slopes around Dumyat would have been wooded with Oaks, Birch and Ash being the most common type of tree, with Juniper and Willows much higher up the hill. Roe deer are the dominant deer species with Sika and Red deer being noted within the vicinity but in very low levels.

Name of woodland area:	Dumyat
Total area of estate:	480 hectares
Total area of current woodland :	Approx 8 hectares based on NWSS survey
Area of proposed woodland creation:	190 hectares of native BL and Scots Pine
Grant schemes or designations:	Woodland Creation

Map 1: Location map showing the legal boundary of Dumyat Estate.

The woodland creation proposal is 190 hectares in size spread across the estate. At present, the estate is primarily rough grazing with small fragments of native and mixed woodland. Mixed ash woodland is the dominant woodland type in the east of the site and was surveyed as part of the Native Woodland Survey of Scotland in 2014. Public access is very high at the Dumyat summit although there are a number of paths running through the site that are not as busy. Deer control has not been in place for a number of years although some of the neighbours are currently managing deer populations such as FLS at Pendriech Forest to the west and Tilhill (Jerah) to the east.

Woodland Herbivore Impact Assessments have been carried out in 2022 with the deer impact assessment showing medium to high across the site. In summary, heavy browsing was recorded in many places (inc sycamore plantation up from the fields by Blairlogie & woodland remnants up Menstrie Glen), however, the broadleaf woodland upslope from Blairlogie itself was actually not subject to such heavy browsing.

It is suspected that most of the deer utilising Dumyat Estate are resident Roe deer which live in the woodland fragments. Forestry and Land Scotland and Tilhill are major neighbours to the estate and therefore dialogue and collaboration with this stakeholder is essential for effective deer management going forward.

Deer Management Plan Objectives

Dumyat Estate objectives:

- Achieve less than 10% leader browsing impact throughout the woodland creation area.
- Have freely growing natural regeneration within and outwith the fenced enclosure due to the reduction in grazing pressure.
- Lower deer densities prior to sealing the fence off (compensatory cull) and maintain a zero tolerance approach within the woodland creation fenced area.
- All deer management operations will follow industry best practice and the deer management code of practice as stated in the FFC policy.

The primary objective of carrying out deer management is that the woodland creation establishes and the existing woodland begins to recover from many years of overgrazing.

A Herbivore Impact Assessment was carried out by a trained ecologist with the results showing medium-high across the site. It is invisaged that the deer cull combined with the deer fence will allow the impacts to move to low within a few years of sealing off the woodland creation site providing the enclosure remains at a very low density/zero tolerance.

Collaboration/Landscape

The estate does not sit within any of the recognised deer management groups but does have like minded landowners in the vicinity. Close collaboration with Tilhill is envisaged due to both parties having large woodland creation objectives on adjacent land. The Future Forest Company will regularly liaise with Scottish Forestry and NatureScot when making decisions on deer management implications across the wider landscape.

Deer Management Approach

As yet, there has not been an active deer management plan in place at Dumyat Estate for a number of years and this plan is seen as the trigger to use an evidence based approach utilising the latest modern tehcniques. The approach will see quality data backing up the decisions on the ground and will include the following datasets to set culls accordingly:

Thermal imagery census - we are scheduling in two thermal imagery drones surveys a year throughout the duration of this DMP to monitor the population on the estate and imminent surroundings. The drone survey will follow the 'minimum count' methodology which has been approved by Scottish Forestry as a recognised census technqie. This will allow a baseline to establish of what deer are present on site and within the surrounding environment. The first survey is due to take place in September/October 2022 which will inform what compensatory cull should be taken from Dumyat prior to any development of the fenced enclosure. The second count will take place in Spring 2023 to gauge what impact the seasons culling has had. Subsequent years will repeat in this cycle of an Autumn and a Spring count.

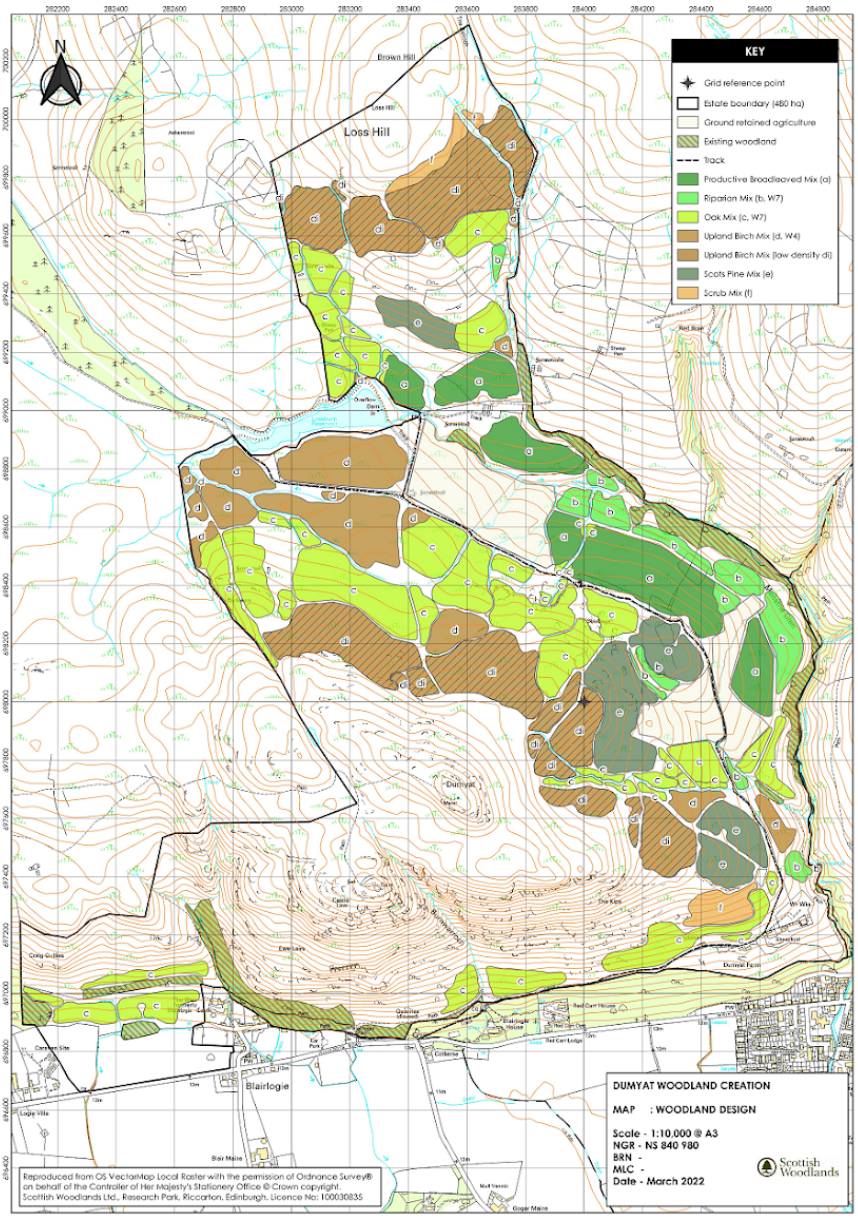
Deer cull data – all of the deer cull data will be collected via a collection mobile app which the deer managers will use. This will allow mapping of the deer cull in real time and allow statutory reporting of all deer culled. This data can then help inform the site manager, head of technical services and the wildlife management advisor what is happening on the ground and how the DMP should adjust over the five year duration.

Monitoring impact – two methods will be used throughout the DMP duration. As mentioned above, the Woodland Herbivore Impact Assessment will be used for the routine monitoring of the health of the existing woodland. This will allow the FFC to track the impact the cull is having and will be used alongside the count and cull data on a spatial platform. The other monitoring method will be the nearest neighbour method to monitor the leader browsing damage on the woodland creation areas. This will involve the site manager and other FFC staff routinely walking transects to gauge any herbivore impact whether its hare, deer, livestock etc.

Using the three datasets above will ensure that all decisions are evidence based and using the latest methodologies to monitor herbivores. By utilising a powerful spatial programme, analysis is made easier and the DMP can adjust accordingly.

Woodland creation plan

Below shows a map of the proposed woodland creation site consisting of native woodland at varying densities and NVC type. More information can be found on the creation proposals by following this link: [Dumyat Estate Woodland Creation Public Consultation]



Map 2: Woodland creation proposals at Dumyat Estate as per public consultation.

Management methods proposed for this plan

There are two methods of deer management planned on this site to protect the woodland creation and ensure the health of the existing woodland. Deer fencing will encompass a large sections of the estate to ensure establishment of the site over the next ten years (see **appendix 2** for the proposed fenceline). Alongside side the fencing proposal, culling will take place throughout the whole estate and will be informed regularly by thermal imagery census, impact and the cull achieved.

Predicting an initial cull on this estate is very difficult to gauge at this stage as numbers are largely unknown. Going forward, it is anticipated that culling will take place within the fenced area alongside a small maintenance cull which will take place on the land outwith the enclosures. In the first instance a compensatory cull will begin in Autumn 2022 to begin lower the Roe deer population within the estate and local landscape. The fenced enclosure will have a 'zero tolerance' approach therefore it is anticipated that the first year will see a higher cull across the estate.

The woodland that is not fenced will be given a cull target that will be reviewed after each thermal imagery drone census. It is hoped that the deer cull will allow regeneration to growly freely and mean that additional physical protection methods are not required out with the fenced enclosure.

The thermal census will inform the site management staff and deer managers twice a year of what deer remain inside the enclosure and what deer are present in the wider landscape. The table below should be viewed as a **live** table that will be kept up to date during the life of this DMP. If deer ingress on to the estate is higher than anticipated (within the woodland creation site and outwith), then the cull target will fluctuate accordingly.

Cull	Year	2022		2023		2024		2025		2026	
		Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Roe	Females	15									
	Males	15									
	Juveniles	10									
	Total	40									

***Please note – an indiciative cull has been given to indicate the minimum cull that should be achieved this season – this figure is subject to change depending on the census results.

Out of season and night shooting

Whilst it is desirable to cull all deer in season and during daylight hours, it is very likely that the NatureScot general licence will be utilised to maximise opportunities to ensure the enclosure remains 'deer free'. If difficulties remain at culling deer within the fenced enclosure then an 18(2) authorisation (night shooting) will be applied for to aid meeting the objectives set out in this plan. All deer culling out with the deer fence (free ranging) will only be culled in season and not using any additional authorisations.

Fenced enclosure

The fenced enclosure will undertake regular checks by site staff, contractors and the wildlife manager. This will ensure that any breach that may take place due to gates being left open, trees blowing over fencelines etc, will be picked up promptly and dealt with accordingly. Handheld thermal imagery will be essential in picking up deer promptly to be identified and culled if general licence allows.

DMP review

Annual reviews of this deer management plan will take place following the receipt of the thermal imagery census, the annual deer cull achieved and the results of the impact monitoring (WHIA and nearest neighbour). Any other herbivore impacts will be noted as it is known that hares are present on site and will be monitored accordingly. It will be tweaked accordingly once the evidence is reviewed by the various staff, contractors and independent consultant.

Contact information for FFC and deer managers

Contacts	Name	Contact details
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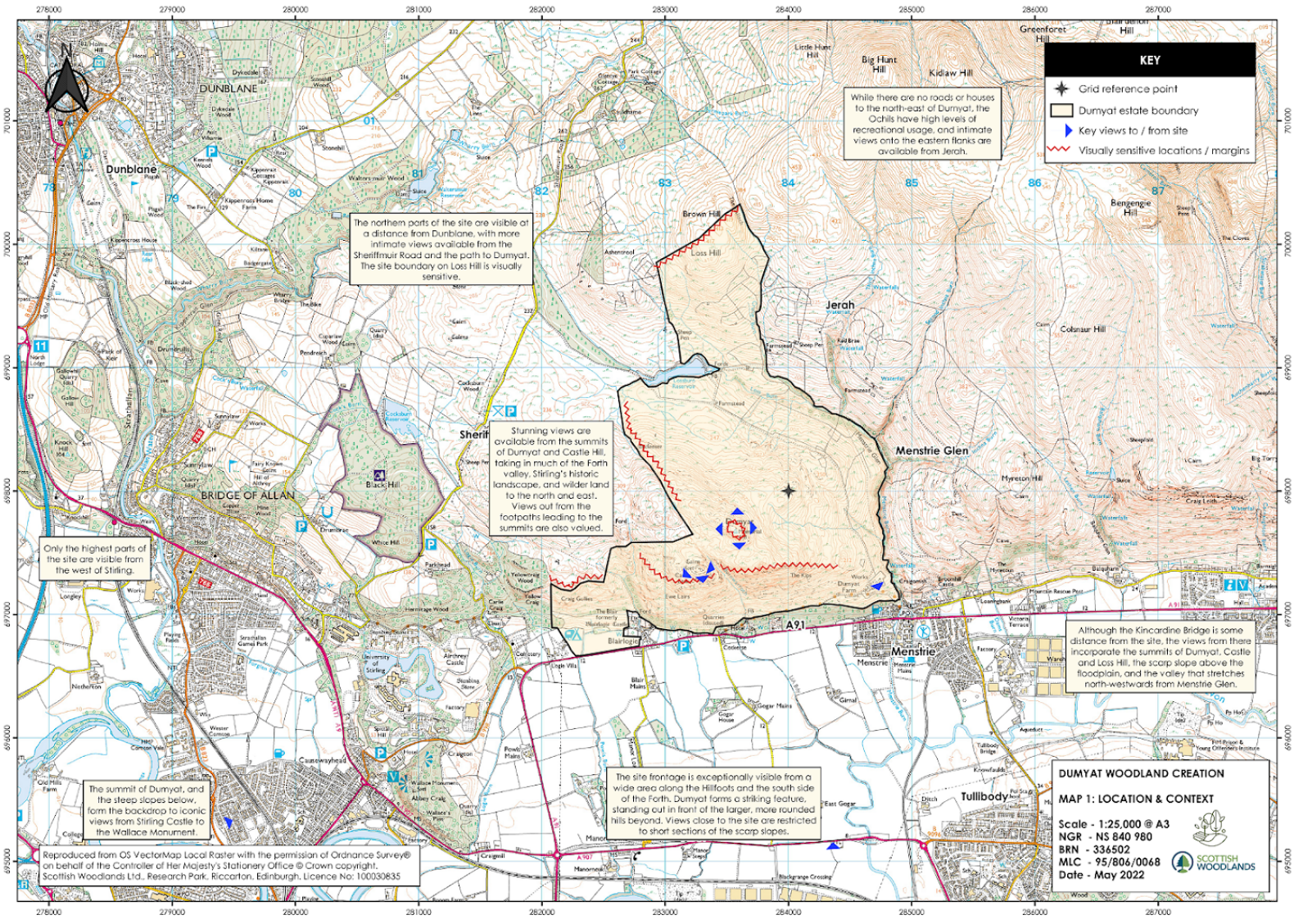
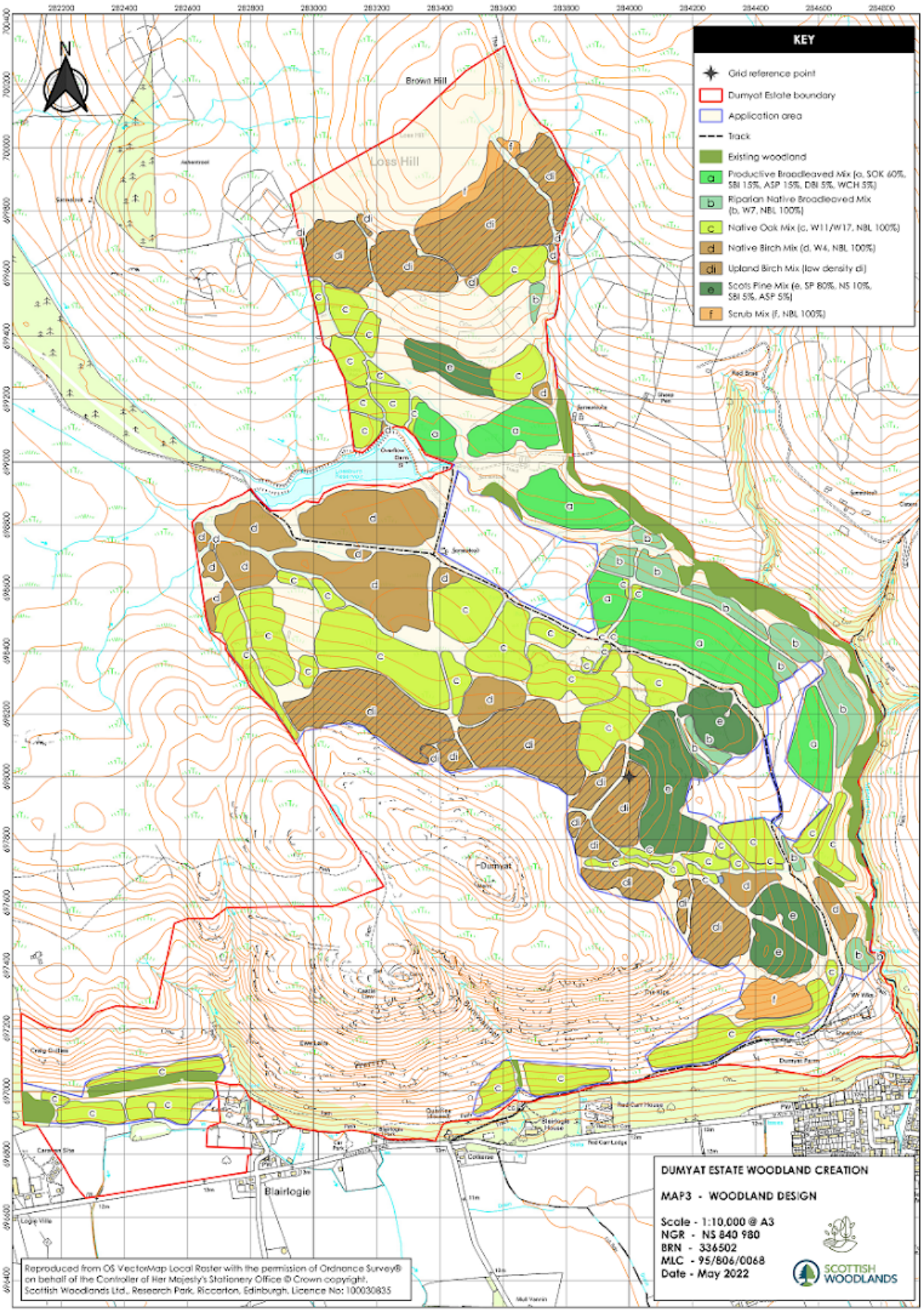
Deer Manager:		
Other helpers:		
Plan written by:	Ben Harrower, BH Consultancy	07786553317 bhconsultancy@outlook.com

Appendix 1: Dumyat Location & Context Map – Note Jerah to the east and FLS forest block Black Hill (Pendreich) to the west – both will be useful stakeholders in terms of deer management going forward.



Appendix 2: Woodland design map showing fenceline – application area/estate boundary


KEY
Grid reference point
Dumyat Estate boundary
Application area
Track
Existing woodland
a Productive Broadleaved Mix (a. SOK 60%, SBI 15%, ASP 15%, DBI 5%, WCH 5%)
b Riparian Native Broadleaved Mix (b. W7, NBL 100%)
c Native Oak Mix (c. W11/W17, NBL 100%)
d Native Birch Mix (d. W4, NBL 100%)
di Upland Birch Mix (low density di)
e Scots Pine Mix (e. SP 80%, NS 10%, SBI 5%, ASP 5%)
f Scrub Mix (f. NBL 100%)
Brown Hill
Loss Hill
Dumyat
Blairlogie
DUMYAT ESTATE WOODLAND CREATION
MAP3 - WOODLAND DESIGN
Scale - 1:10,000 @ A3
NGR - NS 840 980
BRN - 336502
MLC - 95/806/0068
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