

STOBO ESTATE

Woodland Creation Consultation



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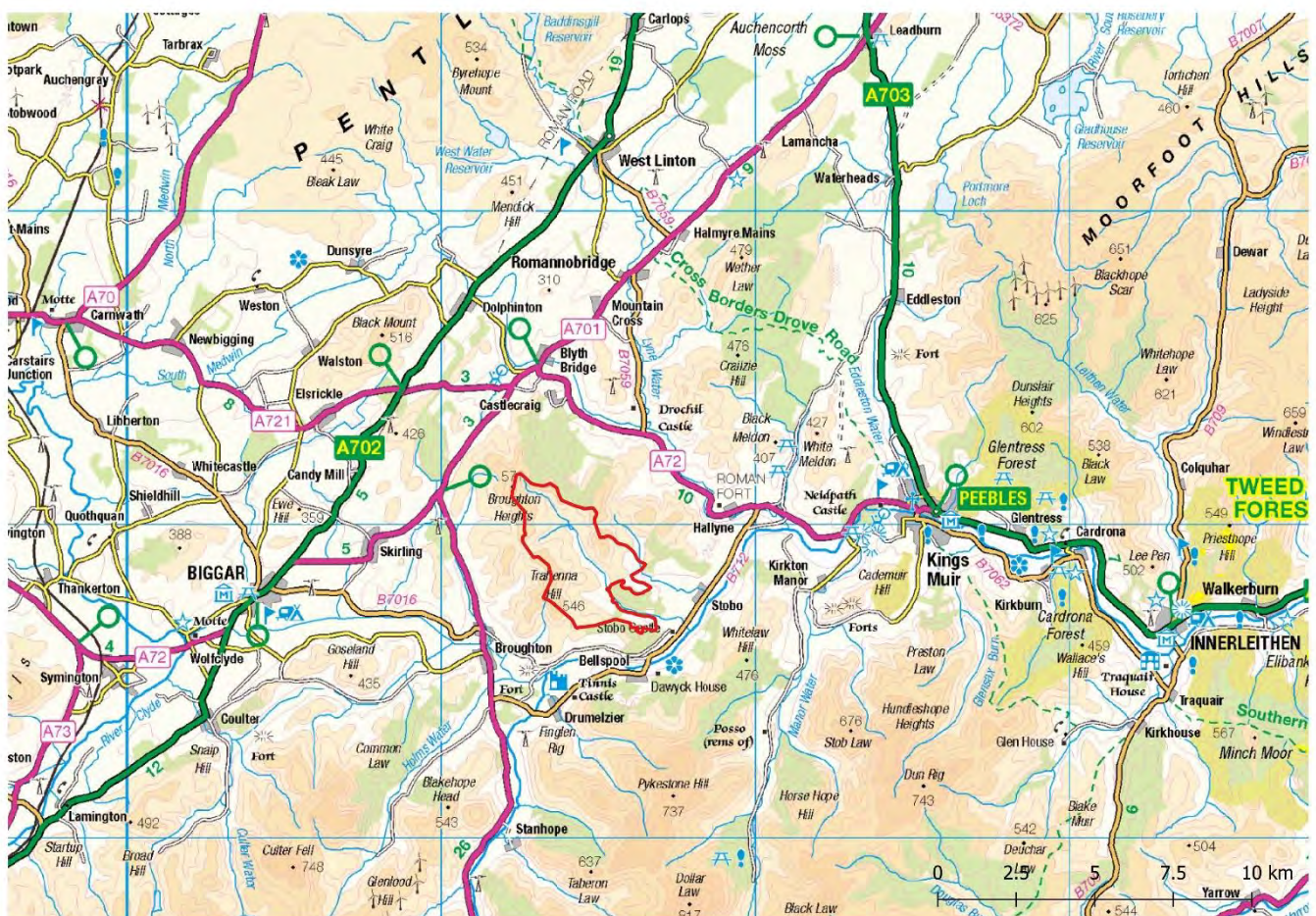
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Proposal Summary

To create a commercially viable productive forest, compliant with the UK Forestry Standard, extending to approximately 900ha. The forest will be aligned to the surrounding landscape character, complementing the feel and scale of the National Scenic area, whilst enhancing and extending priority habitat features and species whilst framing important archaeological locations. The establishment of new habitats, long-term woodland features and habitat corridors will benefit priority species and provide a matrix within which productive conifers of multiple species can be established to meet timber production objectives and provide resilience to a changing climate.

Location

The Stobo estate lies behind Stobo Castle, a valley off the tweed valley, about 5 miles west of the Scottish Borders town of Peebles.



MAP 1 LOCATION

Document List

1. Nevis environmental (now Mabbett) – Phase 1 habitat survey
2. Nevis environmental (now Mabbett) – Extended phase 1 habitat survey
3. Nevis environmental (now Mabbett) – Bird surveys (Winter & Breeding, Black grouse)
4. Game and Wildlife Conservation Trust – Black Grouse advices
5. PRS – Black Grouse Habitat Management Area Map
6. Clyde Archaeology – Archaeology report summary
7. Mabbett – Landscape and Visual Appraisal
8. EnviroCentre – Private Water Supply Impact Assessment
9. PRS – Private Water Supply Map
10. PRS – Peat survey Map
11. PRS – Proposed planting design map
12. PRS – Issues Log and Maps
13. PRS – Timber Transport Appraisal
14. PRS – Recreational Access Map
15. PRS – Stobo Constraints Map

Site Description

Occupying the area between the ordered early 20th-century, Japanese-style water garden of Stobo Castle to its East and the open Pyked Stane Hills to its North and West, can be found the Stobo Hopehead Valley. Travelling up the valley the small tight views, contained by the existing forestry and the rolling nature of the land slowly yield affording views of small Scots pine knolls and the occasional sheepfold, finally reaching its climax within the large bowl surrounding the Stobo Hopehead cottage. It is here the John Buchan Way crosses the site dropping down from the Prehistoric Hammer Knowe Fort before climbing back out to the east in the narrow gap between the Broomy Side and HammerHead hills. The site is flanked on its Northern and South-eastern edges by existing commercial forestry with the remaining edges exposed to the open rolling landscape.



FIGURE 1 – VIEW LOOKING UP THE VALLEY FROM THE RESERVOIR.

ASSESSMENT OF DESIGNATIONS AND CONSTRAINTS

Biodiversity

During 2021 Nevis Environmental conducted an extensive phase 1 survey. Site composition is mainly dry dwarf-shrub heath, acid grassland and bracken, with rush pasture lining the burns and occurring along the burns and seepage lines. Several small areas of conifer/mixed plantation, in the form of copses and shelter belts are present. There is one small area of recently planted broadleaved woodland to the northern end of Stobo reservoir. Several areas of semi-improved grassland, used as enclosed pasture, are present in the eastern part of the site. Potential Ground Water Dependent Terrestrial Ecosystems (GWDTE) include a myriad acid, alkaline, and neutral flushes, two areas of basin mire and one alkaline spring. The alkaline spring and flushes of various quality are located on the southern and eastern slopes of Mid hill and the areas of basin mire located further up the Stobo Hopehead valley. Further information on the GWDTE can be found in the attached documents (1 & 2).

Nevis Environmental (now Mabbett) conducted bird surveys over several visits to the site, these can be summarised as follows:

- Winter Bird Survey 2021
 - Throughout the winter bird surveys a total of 17 species were recorded on site. Of these species, five are included on the BoCC Red List (Eaton *et al.*, 2015): Woodcock, Skylark, Mistle thrush, Hen harrier and Black grouse. Two species are listed as Schedule 1 species under the Wildlife and Countryside Act 1981: Hen harrier and Peregrine falcon.
- Breeding Bird Survey 2021
 - The breeding bird surveys have established that there are five species classified as 'confirmed' breeding on site: Osprey, Buzzard, Meadow pipit, Skylark, and

Stonechat. Nine species were classified as having a breeding status of 'Probable' and 11 species 'Possible'. Of these 'Probable' species, two (Curlew and Whinchat) are included on the BoCC Red List. In addition, Curlew and Red Grouse (amber-listed) are listed on the Scottish Biodiversity List (SBL). Ten species were recorded 'Present' on site but were classified as 'non-breeding'.

- Black Grouse Survey 2021
 - A black grouse lek was located at Protection of the environment and consisted of 7 males, with an additional male outlier.

Due to Black grouse onsite, further guidance was sought from the Game and Wildlife Conservation Trust (attached in documents 4.1 and 4.2), informing broadleaf species choice and future predator control measures. Further consultation was sought from the RSPB and following several iterative designs and the inclusion of a 145 ha Black grouse Habitat Management area (document 5) and Black grouse corridors, agreement has been reached with the proposed planting design.

Landscape

The landscapes effects of woodland creation at Stobo can be considered both externally, considering how it sits with the wider landscape, and the internally understanding views that maybe obscured, enhanced, or framed by the design.



FIGURE 2 VIEW FROM FLINT HILL LOOKING OUT THE VALLEY IN THE DIRECTION OF THE CASTLE

External Views

Roughly half of the site sits within the Upper Tweeddale National Scenic Area (NSA). Noted for its diverse scenery, as interpreted in Figure 3, with the designated landscape of Stobo Castle at the entrance of the site specifically identified within the text. The remainder of the site is identified as a Local Landscape Area (LLA) for Tweedsmuir Uplands)

A key quality of the NSA is the sense of expanse felt at the summit of its tallest hills, calling them “vast open, windswept, inspiring, exhilarating and rewarding landscapes”. Primary summits of the horseshoe are to be unplanted so as to not impede these vistas. The flat-topped nature of the hills couple with steep slopes provides an opportunity to keep planting out of sight from the viewpoints and the nearest trees often hidden completely from view. This planting can then for the characteristic “sharply defined, densely wooded valleys” referred to more than once in the NSA, whilst linking together pockets of existing woodland priority habitat as the Scottish Borders Woodlands Strategy encourages.

Special Quality	Interpretation in context of the proposal
Diverse scenery of great charm and soft beauty	The upper Stobo valley is expansive and, owing to an absence of trees, exposed to various forces of nature. Soft beauty will very much depend on the prevailing weather. Landform trends from being gentle in the valley bottom to being steep on the approach to the ridgeline before rounding off at the summits. Surrounding Stobo, the hill tops tend to be sufficiently broad that they obscure views back to into the valley until one descends off the tops. Variety in character is limited compared to lower elevations, save for seasonal change in colour and texture of the grass, heather, and bracken.
The historical continuities of settlement	<ol style="list-style-type: none"> 1. Most evident in the area surrounding Stobo Castle, with an abundance of historic features and an intimate mix of agriculture, leisure, and mixed woodland. 2. Hammer Know Fort & settlement and Stirkfield settlements are features of historic interest within the landscape, marking points of strategic value in their time. 3. Stobo Hope Head farmhouse now used for educational / adventure activities with Scouts UK.
Green, intimate pastoral valleys	Largely present to the land to the north and east of Tarchreish Hill where agricultural improvement has been most successful. Often, beyond the limits of agricultural improvement, coniferous woodland has been established.
Expansive, open hills with panoramic views	Open views from the ridge should remain unobstructed. Internal viewpoints and vistas also promote the scale and openness of the landscape.
The variety of woodlands and trees	The approach to the upper valley ends with the cessation of tree cover west of Tarcresh. Isolated and deteriorating stands of Scots pine hint to a landscape with greater tree cover historically.
The large, geometric fields	A characteristic of the lower valley. Enclosures around Stobo Hope Head limited in their extent and definition.
The distinctive vernacular buildings	A further characteristic of the lower valley, where human settlements are more concentrated.
Tranquil riverine landscapes	In part, a characteristic of the lower valley, but the upper valley nonetheless plays an important part as the source of three tributaries that feed the Tweed. Broadleaves trees are markedly absent from the riparian edges of these tributaries.

FIGURE 3 - THE SPECIAL QUALITIES OF THE UPPER TWEEDDALE NATIONAL SCENIC AREA

The LLA specifically recommends the use of forest design plans, such as that developed here, particularly to help maintain the “wilderness character” of the hills and find opportunities for positive management valued habitats.



FIGURE 4 - VIEW OF WOOL SHEARS PLANTATION FROM STOBO HEAD COTTAGE

It is important that any planting fits with the scale of a landscape as outlined in the UK Forest standard (UKFS) design principles, the large areas, particularly at the head of the valley, are likely to reward careful design of a woodland of that scale, preventing any sharp edges where woodlands do not fit the valley. The Scottish Borders Woodland Strategy identifies that the hastily planned post war woodlands have often resulted in these sharp edges that cut across contours, an example of this is the Woolshears Wood found on the northern boundary, the planting of Stobo would allow an opportunity to connect these edges (Such as that shown in figures 2 and 5) incorporating them into the softer shape of the new planting, following the contours to mimic a natural treeline.

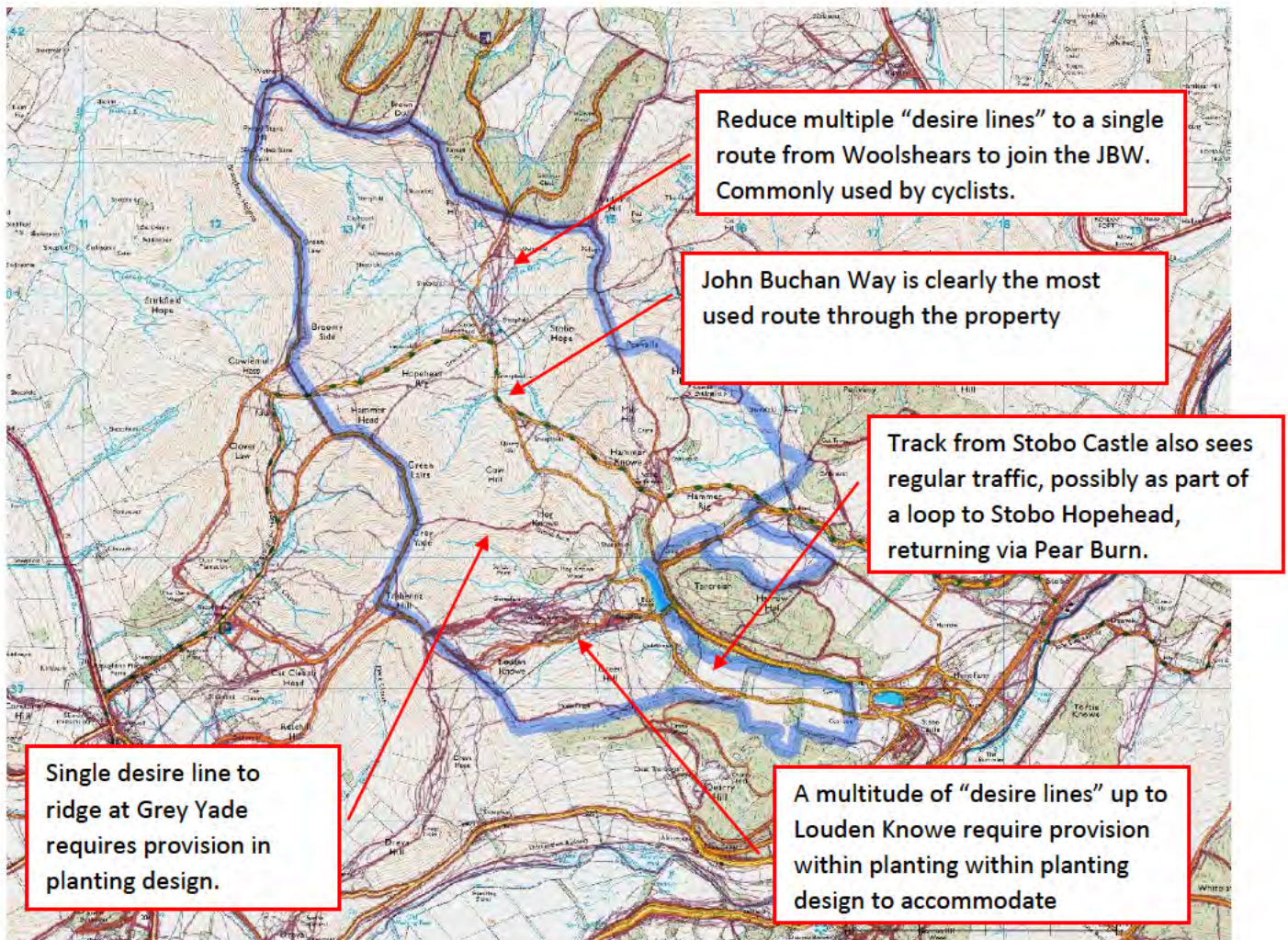


FIGURE 5 - 360 DEGREE VIEW FROM TROD AT THE SUMMIT OF PENVALLA, THE MAJORITY OF THE SITE IS HIDDEN AND DWARFED BY THE FLAT TOP

As woodlands are not fixed in time it is important to consider how the woodland will fit within the landscape over time, considering access tracks, and future working coupes at the design stage. These felling coupes will be influenced by several factors, but it is likely that landscape designs will align with other considerations such as avoiding bluff edges to mitigate windblow risk.

Internal Views

The NSA considers a journey through the landscape on foot "...the walker may choose between the intimate shelter of the quiet, tranquil, wooded pastoral valleys and the short rewarding climb up the slopes to the welcoming tops, with their exhilarating panoramas across the valleys and the hills." Considering the number of views of the site and their location, in line with the UKFS design principles, at Stobo, this walker is most likely travelling along the John Buchan Way (Map 1). Mirrored in either direction, the route first climbs to a col affording views into Stobo before dropping down to the valley bottom to cross the site, these appear to be two of the most important views to preserve as they give a sense of scale to the landscape. woodland can highlight an important feature such as an Archaeological site. Dropping down from the exposed tops into wooded valleys will enhance the sense of contrast identified and explored in the NSA.



MAP 2 STRAVA'S 'HEATMAP' SHOWING ACTIVITY BY THEIR USERS, WITH 'HOTTER' COLOURS SHOWING MORE RELATIVE USE, HERE FOCUSED ON THE JOHN BUCHAN WAY

Access and Recreation

Access roads and tracks will provide further recreation opportunities, allowing visitors to the site easier access to areas, thus possibly influencing usage patterns, use and views from these tracks should also be considered in the design. The Recreational Access Map (document 14) takes in to account the desire lines highlighted in Map 2 and reconciles commonly used routes throughout the valley against the proposed planting design (document 11). Where these desire lines fall in the middle of planned planting coupes, we have proposed minor diversions up species boundaries along quad tracks (to be created during the planting phase) or (in the case of the route down from Woolshears) out and along the future forest road – away from a Black Grouse corridor.

In conversations with Scottish Borders Council, it has been highlighted that where cyclists and horse-riders are access the site multi-use gates (such as those demonstrated in Figure 25 in Trout and Pepper, 2006) should be provisioned. Public consultation has also preferred pedestrian gates instead of styles. As such, where access routes crosses deer fencing, gates appropriate to the use type will be used.

Louden Know Wood is one of several wooded features in the landscape that date back to the Victorian Era and which are now in decline – Further reducing the wooded character of the lower valley



FIGURE 5 THE FIRST VIEW INTO STOBO VALLEY FROM THE JOHN BUCHAN WAY WHEN TRAVELLING FROM THE EAST

Tarcreish Wood, appearing on the near skyline, forms an abrupt cessation of plantation with minimal graduation to open habitats.

The John Buchan Way, with views across the valley, is an important feature from which to appreciate the NSA, especially the panoramic aspects.

Woodland creation of native broadleaved and conifer species, alongside commercial components could be designed to fit the landform and create new habitats without obscuring the wider appreciation of the valley

Designed Landscape

The area to the southeast of the proposal area occupies the north-facing slope between Quarry Hill and Tarcreish Hill. While this area is framed to the north and south by mainly coniferous woodland, it forms part of the Historic Parks & Gardens Landscape designation associated with Stobo Castle, which lies 500m to the east. Weston Burn runs along the northern boundary and goes on to feed the lakes that form part of the Japanese Gardens.

While the landscape in this part is framed by plantations that were planted prior to the Historic Landscape designation, there is still opportunity to allow a woodland creation design to complement the parkland setting to the east. There is an obvious cessation to the parkland planting as you travel west from Stobo Castle to Coshbog, west of which agricultural use has dominated and parkland trees are suddenly absent.

We therefore envisage a blend of open space and specimen trees west of Coshbog that draw inspiration from the existing parkland. This serves to extend the parkland character further west than exists currently and begin some succession to the older specimens around the castle. Moving gradually west up the valley from Coshbog, some areas of existing woodland exist that break up the visual lines of sight. Here, open space starts to diminish and single specimens become single species

groups of broadleaves or conifers, providing a gradual transition from parkland to, eventually, forest.

We see scope to incorporate specimen groups within areas managed for timber, whereby they can be retained following felling of the surrounding trees to restore the parkland feel. Species selection and planning of open space are key considerations in achieving the desired outcomes for this area (Figure 6).

Landscape and Visual Appraisal

Over the course of the summer and autumn 2022 Mabbett conducted a landscape and visual appraisal (document 7) of Pryor and Rickett Silviculture's proposed planting scheme (document 11) in relation to the Upper Tweeddale NSA, the Tweedsmuir Uplands SLA, and the Stobo Castle GDL and concluded that:

"The landscape, and visual changes attributable to the proposal are thought to be limited to the application and its immediacy. Although introducing a new land use, the proposal would be located within the existing Stobo Estate, a managed landscape with an established history of pre-historic and more recent human influence as well as both historic and modern-day estate activity. Adverse landscape, visual and cumulative effects identified by the appraisal are limited to the 'host' landscape reflecting the localised nature of effects and the capacity of the application site to accommodate the proposal in landscape and visual terms."

Wester fields not visible from Stobo Castle due to break of slope and existing conifer plantations

Parkland surrounding Stobo Castle

Eastern fields behind Coshbog, framed by coniferous woodland, are visible as an extension of Stobo Castle parkland.



Opportunity to create an extension to the existing parkland feature, balancing “Green, intimate pastoral valleys” with “Diverse scenery of great charm and soft beauty” and “the variety of woodlands and trees” that define the NSA.

Coshbog

Stobo Castle (Hotel and Spa)

Coshbog

FIGURE 6 AERIAL & GROUND VIEWS SHOWING STOBO CASTLE AND PARKLAND, WITH OPEN FIELDS WESTWARDS FROM COSHBOG

Community Engagement

Two drop-in sessions and local council meetings have given us the opportunity to collate the views of the local residents, the majority of points lay with the look and feel of the woodland in the landscape. The consultation found that interest could be summarised into the following points in order for it to be incorporated into the design:

- Preserve ridgeline panorama
- Fence alignment below the ridge
- Maintain a sense of place along the JBW
- Create vistas, not just viewpoints
- Segregation of forestry activities from recreational areas
- Safeguarding private water supplies
- Creation of new habitats
- Careful planning of timber transport during extraction (document 13)

Water

The Scottish Borders Woodland Stagy recognises that appropriate tree cover can have many beneficial effects on water quality and run off characteristics. At Stobo the majority site drains into one central burn, Hopehead burn, this runs into the reservoir and then onto the pools within the castle grounds, ultimately draining into the River Tweed SSSI. Over the ridge, a small proportion of the eastern most edge of the site, drains through Pear Burn into Easton burn taking a more direct path to the River Tweed, travelling uninterrupted for just over 2km from the Site boundary to reach it. The UKFS outlines minimum buffer sizes for water course, but more appropriate planting to fit the landform will provide greater variation in buffer width to mimic natural processes. Additionally, these long-term retention features of native planting and/ or open space along water courses contribute to improved water quality feed into the river network.

Stobo Castle and the residents of Coshbog, Highfield, and West Lodge all expressed concerns of the effect of afforestation on their private water supplies (PWS). A hydrology survey has been conducted on behalf of Pryor and Rickett Silviculture by EnviroCentre (document 8) to assess the impacts of the proposed planting scheme on the aforementioned private water supplies. They concluded that the planned planting around the PWS for Coshbog, Highfield, and West Lodge (see document 9) will have no impact on water availability and that “the proposed planting will have a relatively low impact on water yields...under the current planting proposals” for Stobo Castle.

The owners of Stobo have further agreed to the installation of extra water storage to help buffer Stobo Castle’s future water demands.

Historic Environment

Clyde Environmental conducted an extensive onsite Archaeology survey (document 6). A total of 153 sites related to the historic environment were recorded through desk-based research and field survey. These included evidence of both prehistoric and more recent settlement and farming practices, prehistoric funerary remains, historic estate activities and parts of an 18th to early 20th century design landscape. Five designated sites were present within the assessment area. These comprised one Garden and Designed Landscape: Stobo Castle (GDL349) and four prehistoric

Scheduled Monuments: the Pyked Stane cairne (SM2938), Clapshock Rig homestead (SM3217), Hammer Knowe fort (SM3094), and Huskie Rig funerary remains (SM2778). Further details are attached and used to inform the design, using the UKFS principles of grouping sites and maintaining their setting.

Silviculture and Establishment

It is important that when the decision has been taken to plant a tree in a location that it is suited to the climate and conditions, to aid this the ecologic site classification tool (Esc) has informed the figures in the following tables, showing forecasted good growth in both productive conifer species.

Productive species will not only provide increased carbon capture benefits but contribute to the rural economy in the local area, providing jobs in the future, as identified as a priority in the Scottish Borders Woodland Strategy.

Species	Yield Class Forecast m ³ /ha/yr	Min	Average	Max
Downy birch (<i>Betula pubescens</i>)	Baseline Climate 1961 - 1990	3	6	7
	Medium High 2050 (A1b/3q0)	4	6	7
Pedunculate oak (<i>Quercus robur</i>)	Baseline Climate 1961 - 1990	0	3	5
	Medium High 2050 (A1b/3q0)	1	6	7
Sitka spruce (imp.) (<i>Picea sitchensis</i>)	Baseline Climate 1961 - 1990	12	22	28
	Medium High 2050 (A1b/3q0)	20	28	31

Productive species will be complemented by native species and planting compositions. Allowing the woodlands to develop a more natural edge by increasing the spacing at its upper limits and the use of native alpine species. Likewise, a greater diversity of species would suit planting at the valley floor, afforded shelter by the neighbouring planting and tall hills.

The deer population in the area is likely suppressing any natural regeneration, and would have significant negative effects on tree establishment, use of fencing and/or deer control will be critical in establishing productive forests. As the trees mature there will be a necessity for thinning operations, these will be about ensuring minor species and broadleaved elements can be designed in a way that can be managed with long term objectives in mind, encouraging a continuous cover approach.

Resulting principles

From the information gathered so far, the proposal shall follow the resulting principles and methods.

Biodiversity

1. Incorporate learning and recommendations from phase 1 habitat and extended phase 1 habitat survey.
2. Incorporate learning and recommendations from bird surveys and subsequent advice.
3. In areas where deep peat is identified, incorporate it into the open space with a buffer.

Landscape

External Views

1. Join and soften edges of existing woodland. This will be particularly prevalent to the north of site where the current plantation forest cuts across the skyline.
2. Follow "lines of force" to create natural planting shapes up to an average height of around 450m. The most prominent of these identified onsite is the ridgeline falling south from the summit of Penvalla incorporating the Hammer Knowe Fort.
3. Retain key vistas and tree free summits to preserve views over the woodland and sense of openness and space. This will be achieved by pulling planting back from the flat summits of the main hills, keeping this wide view open as the tops are the predominant viable areas when at the summit.
4. Ensure planting is sufficiently far back from ridgelines so that it cannot be seen from the next valley reducing its influence in the landscape.
5. Where possible avoid planting against the contours.
6. Large scale landscapes can reward large scale design.
7. Mirror patterns of enclosures, with smaller design features lower down and larger expanses further up the valley.
8. Soften edges with wider spacing and alpines species where appropriate, particularly along areas of the Western edge that border the open hills.
9. Create interlocking organic shaped species boundaries and consider neighbors planting designs where edges meet.
10. Consider future changes to the landscape, through harvesting and growth of planned planting at the design stage.
11. Follow advice from Landscape and Visual Assessment

Internal Views

1. Identify and maintain views from key vantage points in the woodland.
2. Keep area of open space within the woodland to maintain some of the scale of the landscape and highlight key features.
3. Clever use of planting can be used to frame views or screen them to build anticipation.
4. The positioning of open ground on steeper slopes next to high use areas maximizes its effectiveness, producing better views out or across the site as a reminder of the scale of the valley floor.
5. Follow advice from Landscape and Visual Assessment

Designed Landscape

1. Planting close to the designed landscape should mirror its character and be sympathetic to views from it.

Water

1. Buffer watercourses with open ground to a minimum width as identified by UKFS.
2. Concentrate LTR planting around watercourses to prevent disturbance and risk of pollution in the future.
3. Follow advice from Private water impact survey.

TABLE 1 UKFS WATERCOURSE BUFFER MINIMUM WIDTHS

Buffer width Situation	
10 m	Along permanent watercourses with a channel less than 2 m wide. (Narrower widths of buffer area may be allowable along minor watercourses with a channel less than 1 m wide, especially on steep ground.)
20 m	Along watercourses with a channel more than 2 m wide and along the edge of lakes, reservoirs, large ponds, and wetlands.
50 m	Around abstraction points for public or private water supply, such as springs, wells, boreholes, and surface water intakes.

Historic Environment

1. Follow advice from professional archaeological survey.
2. Use open space buffer around important identified sites.
3. Use additional open space or internal views to enhance or highlight features, e.g., Huskie Rig and associated cultivation remains.
4. Consider grouping historic features into single open spaces.

Silviculture

1. Use ESC and indicators onsite to guide species choice.
2. Maintain deer populations through exclusion and control.
3. Ensure the succession of extant wooded areas through sensitive planting.

References

1. A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* 114: 723-747
2. Trout, R.C. and Pepper, H.W. (2006), *Forest Fencing*, Forestry Commission Technical Guide. Forestry Commission Edinburgh.