Elibank, Traquair, Caberston and Thornielee

Land Management Plan

2021 – 2031

We manage Scotland's National Forest Estate to the United Kingdom Woodland Assurance Standard – the standard endorsed in the UK by the international Forest Stewardship Council® and the Programme for the Endorsement of Forest Certification. We are independently audited.

Our land management plans bring together key information, enable us to evaluate options and plan responsibly for the future. We welcome comments on these plans at any time.

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Property Details			
Property Name:	Elibank, Traquair, Caberston and Thornielee Forests		
Grid Reference (main forest entrance):	Elibank NT 367368 Traquair NT 358367 Caberston NT 336389 Thornielee NT 405364	Nearest town or locality:	Innerleithen and Walkerburn
Local Authority:		Scottish Borders	

Applicant's Details			
Title:	Mr	Forename:	John
Surname:	Ogilvie		
Position:	Planning Forester		
Contact Number:	07887 822525		
Email:	john.ogilvie@forestryandland.gov.scot		
Address:	Forestry and Land Scotland, Weaver's Court, Forest Mill, Selkirk		
Postcode:	TD7 5NY		

Owner's Details (if different from Applicant)	
Name:	
Address:	

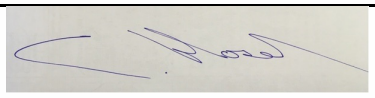
1. I apply for Land Management Plan approval for the property described above and in the enclosed Land Management Plan.

2. I apply for an opinion under the terms of the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017 for afforestation / deforestation / roads / quarries as detailed in my application.

3. I confirm that the scoping, carried out and documented in the Consultation Record attached, incorporated those stakeholders which the FC agreed must be included. Where it has not been possible to resolve specific issues associated with the plan to the satisfaction of the consultees, this is highlighted in the Consultation Record.

4. I confirm that the proposals contained in this plan comply with the UK Forestry Standard.

5. I undertake to obtain any permissions necessary for the implementation of the approved Plan.

Signed, Pp Regional Manager		Signed, PP Conservator	
FLS Region	South	SF Conservancy	South
Date	15/3/21	**Date of Approval**	6/7/2021
		Date Approval Ends	5/7/2031

Contents

1.0 Objectives and Summary

1.1 Plan overview and objectives

Plan name	Elibank, Traquair, Caberston and Thornielee
Forest blocks included	As above
Size of plan area (ha)	3542 ha
Location	See Location map (**Map 1**)

Long Term Vision
As of Tweed Valley Forest Park, Elibank, Traquair, Caberston and Thornielee Forests will be resilient, healthy and productive forests, providing a multipurpose resource for timber and recreation. Landscape and environmental services provided by the forests will be protected and enhanced.
Management Objectives
1. To maintain a multi-purpose and multi-benefit forest for the local and national economy. 2. To plan and design resilient and healthy forests. 3. To enhance landscaping in visitor zones. 4. To care for priority habitats and species.
Critical Success Factors
• Achieve clearfell and thinning programmes to contribute to the Region's sustainable timber production targets; • Carry out timely thinning and Continuous Cover Forestry (CCF) interventions; • Achieve timely and successful restock through planting and natural regeneration; • Successfully establish native broadleaves in riparian zones and other priority areas for expansion; • Protect broadleaves and 'soft' conifers from deer browsing damage.

1.2 Summary of planned operations

Table 1

Summary of Operations over the Plan Period	
Clear felling	981 ha
Thinning (potential area)	1110 ha
Restocking (gross)	1022 ha
Afforestation	0 ha
Deforestation	0 ha
Forest roads (new)	1550 m
Forestry quarries	0 ha

The forest is managed to the UK Woodland Assurance Standard – the standard endorsed in the UK by the *Forest Stewardship Council* and the *Programme for the Endorsement of Forest Certification*. Forestry and Land Scotland is independently audited to ensure that we are delivering sustainable forest management.

2.0 Analysis and Concept

The planning process was informed by collecting information about the woodland, which is presented in **Appendix I** and on **Map 2**. During the development of this plan we have consulted with the local community and other key stakeholders, and a Consultation Record is presented in **Appendix III**.

The plan's objectives were analysed against the constraints and opportunities identified during scoping and consultation. Preferred options were then chosen for delivering the objectives, and these proposals are summarised on the Analysis and Concept map (**Map 3**).

3.0 Management Proposals - regulatory requirements

3.1 Designations

The plan area forms part of, includes, or is covered by the following designations and significant features.

Table 2

Designations and significant features		
Feature type	Present	Note
Site of Special Scientific Interest (SSSI)	Yes	Watercourses are tributaries of the River Tweed SSSI Part of Plora Wood SSSI
National Nature Reserve (NNR)	No	
Special Protection Area (SPA)	No	

Special Area of Conservation (SAC)	Yes	Watercourses are tributaries of the River Tweed SAC
World Heritage Site (WHS)	No	
Scheduled Monument (SM)	Yes	SM1491 Pirn Wood (fort) SM2758 Cairn Hill (cairn) SM2763 Walkerburn (cairn) SM2861 The Common (settlement)
National Scenic Area (NSA)	No	
National Park (NP)	No	
Deep peat soil (>50 cm thickness)	No	
Tree Preservation Order (TPO)	No	
Biosphere reserve	No	
Local Landscape Area	Yes	Tweed Valley
Ancient woodland	Yes	Caddonbank ASNW
Acid sensitive catchment	No	
Drinking Water Protected Area (Surface)	No	

3.2 Clear felling

Sites proposed for clear felling in the plan period are identified as Phase 1 and Phase 2 coupes on the Management map (**Map 4**).

Table 3

Clearfell Summary by Phase and Coupe Number				
Phase	Coupe Number	Fell Year	Gross Area (ha)	Volume (m^3 OBS)
Elibank				
1	73015	2022	41.1	16522
1	73022	2023	40.6	21974
1	73110 (LISS)	2022	3.6	1800
1	73120 (LISS)	2022	1.6	700
Traquair				
1	74002	2023	14.2	4575
1	74020	2023	29.3	9926
1	74023	2025	7.1	2297
1	74036	2022	1.4	496
1	74039	2025	15.9	5255
1	74044	2023	22.8	5434
1	74057	2025	3.8	1523
1	74068	2023	18.6	10096
1	74075	2022	88.0	28453

1	74078	2023	30.0	18033
1	74080	2023	20.5	9068
Thornielee				
1	75001	2023	6.6	3526
1	75002	2023	15.0	3920
Caberston				
1	76001	2024	26.4	14479
1	76003	2024	24.0	7763
1	76017	2024	15.0	2745
1	76020	2023	13.9	5304
1	76036	2023	34.0	10313
1	76046	2023	14.1	5517
Total Phase 1			**487.5**	**189719**
Elibank				
2	73016	2029	14.8	7479
2	73023	2030	24.1	17834
2	73039	2030	34.0	20502
2	73101 (LISS)	2028	1.4	600
2	73111 (LISS)	2028	3.8	1800
2	73121 (LISS)	2028	1.1	600
2	73130 (LISS)	2029	2.7	2000
Traquair				
2	74006	2027	12.2	2796
2	74009	2030	5.9	1169
2	74015	2029	28.5	10373
2	74021	2030	3.5	1661
2	74028	2030	0.4	288
2	74031	2030	7.6	2265
2	74053	2027	15.9	8411
2	74061	2031	39.4	11960
2	74062	2031	23.0	3408
2	74066	2030	55.2	24413
2	74070	2029	68.1	33358
Thornielee				
2	75010	2027	11.4	6347
Caberston				
2	76009	2029	40.9	15715
2	76024	2031	9.1	2872
2	76034	2030	28.7	12832
2	76041	2028	17.4	6395

2	76044	2027	11.3	4662
2	76047	2030	9.1	2066
2	76049	2029	24.4	10580
Total Phase 2			**493.9**	**212386**

Total	**981.4**	**402105**

Table 4

Clearfell by Species												
		Net Area (ha) by Main Species >20% (or MC, MB)										
Coupe Number	**Fell Year**	**DF**	**EL**	**HL**	**JL**	**LP**	**NS**	**SP**	**SS**	**MC**		**Coupe Total**
Phase 1 - Elibank												
73015	2022	5.1	9.8		10.4	7.7	0.7	4.4	1.0			**39.2**
73022	2023								38.8			**38.8**
73110 (LISS)	2022				0.1			0.5	3.0			**3.6**
73120 (LISS)	2022						1.4	0.2				**1.6**
Phase 1 - Traquair												
74002	2023	2.0			9.7			1.7				**13.4**
74020	2023	13.4		7.7	0.1	0.1			7.8			**29.1**
74023	2025	2.6	1.4	0.6				0.5	0.6	0.5		**6.2**
74036	2022			0.7					0.6			**1.3**
74039	2025		0.1	6.0	1.0	2.0			6.3			**15.4**
74044	2023	0.1		3.0		4.9			9.7			**17.7**
74057	2025	0.4	0.9	1.9				0.1	0.5			**3.8**
74068	2023			5.1					12.3			**17.4**
74075	2022	7.5			23.8	6.1		0.8	25.4			**63.6**
74078	2023								26.1			**26.1**
74080	2023								16.7			**16.7**
Phase 1 - Thornielee												
75001	2023	2.7			3.5		0.1		0.1	0.1		**6.5**
75002	2023	2.2	0.7		6.1	3.7		1.6	0.3			**14.6**
Phase 1 - Caberston												
76001	2024				2.6		1.0		22.6			**26.2**
76003	2024				2.6				20.0			**22.6**
76017	2024				2.5			1.4	10.5			**14.4**
76020	2023	1.1		0.5			0.1		11.8			**13.5**
76036	2023	13.7		7.1		6.7			6.1			**33.6**
76046	2023							0.5	12.8			**13.3**

Phase 1 Total		**50.8**	**12.9**	**32.6**	**64.3**	**31.2**	**1.9**	**11.0**	**238.7**	**0.6**		**438.6**
Phase 2 - Elibank												
73016	2029	2.3	2.1		5.2	0.4		3.2	1.4			**14.6**
73023	2030								23.5			**23.5**
73039	2030							4.0	29.3			**33.3**
73101 (LISS)	2028	0.4					0.1		0.9			**1.4**
73111 (LISS)	2028							0.4	3.4			**3.8**
73121 (LISS)	2028						0.9	0.2				**1.1**
73130 (LISS)	2029							0.6	2.1			**2.7**
Phase 2 - Traquair												
74006	2027				11.4			0.1	0.2			**11.7**
74009	2030				4.1					0.2		**4.3**
74015	2029	1.0		1.3	3.1	3.2		2.0	16.3	0.8		**27.7**
74021	2030	2.5		0.2					0.6			**3.3**
74028	2030									0.4		**0.4**
74031	2030	1.8	1.8	2.0		2.0						**7.6**
74053	2027							0.1	13.8			**13.9**
74061	2031	0.9	0.9	7.1	7.4	10.2		0.7	11.4	0.1		**38.7**
74062	2031			0.6					7.7			**8.3**
74066	2030								43.8			**43.8**
74070	2029					0.1			65.2			**65.3**
Phase 2 - Thornielee												
75010	2027							0.1	11.0			**11.1**
Phase 2 - Caberston												
76009	2029	3.0			2.0			0.4	33.2	1.9		**40.5**
76024	2031	2.6		0.8	0.1			0.5	3.1			**7.1**
76034	2030	10.4		2.4	1.8	3.3		0.9	9.2			**28.0**
76041	2028							2.4	15.0			**17.4**
76044	2023				2.0				8.7			**10.7**
76047	2030				5.4				1.2			**6.6**
76049	2029						3.5		18.0			**21.5**
Phase 2 Total		**24.5**	**4.8**	**14.4**	**40.5**	**19.2**	**3.5**	**14.4**	**303.9**	**3.4**		**448.3**

Plan Area Total	**75.3**	**17.7**	**47.0**	**104.8**	**50.4**	**5.4**	**25.4**	**542.6**	**4.0**		**886.9**

Table 5

Scale of Proposed Felling Areas										
Total Woodland Area			3320		ha					
Felling	Phase 1	%	Phase 2	%	Phase 3	%	Phase 4	%	Long Term Retention	%
Net Area (ha)	439	13.2	448	13.5	324	9.8	201	6.1	152.2	4.6

3.3 Thinning

Potential sites for thinning in the plan period are identified on the Thinning map (**Map 5**).

This covers an area of 1110 ha

Thinning will normally be carried out at, or below, the level of marginal thinning intensity (i.e. removing no more than 70% of the maximum MAI, or YC, per year). Higher intensities (no more than 140 % of maximum MAI, or YC, per year) may be applied where thinning has been delayed, larger tree sizes are being sought or as part of a LISS prescription. In all cases work plans will define the detailed thinning prescription before work is carried out and operations will be monitored by checking pre and post thinning basal areas for the key crop components.

3.4 Other tree felling in exceptional circumstances

FLS will normally seek to map and identify all planned tree felling in advance through the LMP process.

However, there are some circumstances requiring small scale tree felling where this may not be possible and where it may be impractical to apply for a separate felling permission due to the risks or impacts of delaying the felling.

Felling permission is therefore sought for the LMP approval period to cover the following circumstances:

Individual trees, rows of trees or small groups of trees that are impacting on important infrastructure (as defined below*), either because they are now encroaching on or have been destabilised or made unsafe by wind, physical damage, or impeded drainage.

**Infrastructure includes forest roads, footpaths, access (vehicle, cycle, horse walking) routes, buildings, utilities and services, and drains.*

The maximum volume of felling in exceptional circumstances over the plan area covered by this approval is 40 cubic metres per calendar year.

A record of the volume felled in this way will be maintained and will be considered during the five year Land Management Plan review.

[N.B. Trees may be felled without permission if they: are of less than 10 cm diameter at breast height (1.3 m); pose immediate danger to persons or property; are completely dead; or are part of Authorised Planning Permission works or wayleave agreements].

3.5 Restocking

Proposed restocking is shown on the Future Habitats and Species map (**Map 6**). More detailed notes on restocking, including species mixtures, are provided in the sections on Clearfelling and Restocking, and Species Choice, in 4.0 Management Proposals – guidance and context.

Table 6

Restocking							
Phase	Coupe Number	Gross Area (ha)	Proposed Restock Year	Species	Method *	Minimum stocking Density (s/ha)	Note
Felled awaiting restocking							
Elibank							
1	73001	32.0	2021/22	SS/SP	NR/R	2500	Extensive patches of SS regen throughout the site to be surveyed. Where necessary, gaps to be planted with Scots pine.
Caberston							
1	76007	26.0	2022/23	DF/SS SS/SP MB	R R R	2500 2500 1600	2:1 2:1 50% native broadleaves

Elibank							
1	73015	41.1	2022/23	SP/BI/ open	R	1600	2:2:1
1	73022	40.6	2024/25	SS/SP SP/BI	R R	2500 2500	2:1 2:1
Traquair							
1	74002	14.2	2023/24	NS/BI SP/BI MB	R R NR/R	2500 2500 1600	2:1 2:1 80% native broadleaves.
1	74020	26.1	2023/24	DF/SS/BI MB	R R	2500 1600	6:3:1 80% native broadleaves
1	74023	7.1	2025/26	MB	NR/R	1600	80% native broadleaves
1	74036	1.4	2029/30	MB	NR/R	1600	80% native broadleaves
1	74039	15.9	2026/27	DF/SS	R	2500	6:3:1
1	74044	22.6	2024/25	SS/SP MB/MC	R R	2500 1600	2:1 4:1
1	74057	3.8	2026/27	SP/MB MB/open	R R	2500 1600	2:1 50% native broadleaves
1	74068	18.6	2024/25	SP/NS/BI MB/open	R R	2500 1600	6:3:1 50% native broadleaves
1	74075	88.0	2024/25	DF/NS/BI SS/SP SP/BI MB/open	R R R R	2500 2500 2500 1600	6:3:1 2:1 2:1 50% native broadleaves
1	74078	30.0	2024/25	DF/NS/SS MB/open	R R	2500 1600	2:1 50% native broadleaves
1	74080	20.5	2024/25	DF/NS MB/open	R R	2500 1600	2:1 50% native broadleaves
Thornielee							
1	75001	6.6	2023/24	MB/open	R	1600	80%
1	75002	15.3	2023/24	DF/SP/MB	R	2500/1600	3:1:1
Caberston							
1	76001	26.4	2025/26	DF/SS SS/SP MB/open	R R R	2500 2500 1600	1:1 2:1

							50% native broadleaves
1	76003	24.0	2025/26	DF/SS SS/SP MB/open	R R R	2500 2500 1600	1:1 2:1 50% native broadleaves
1	76017	15.0	2025/26	SS/SP	R	2500	2:1
1	76020	13.9	2024/25	DF/NS/BI	R	2500	6:3:1
1	76036	34.0	2024/25	SS/DF SP/BI MB/open	R R R	2500 1600 1600	2:1 1:1 50% native broadleaves
1	76046	14.1	2023/24	DF/SS SP/BI	R R	2500 1600	2:1 2:1
Elibank							
2	73016	14.8	2029/30	DF/NS/BI SP/BI MB	R R R	2500 1600 1600	6:3:1 1:1 50% native broadleaves
2	73023	24.1	2031/32	SS/SP	R	2500	2:1
2	73039	33.7	2031/32	NS SS/SP SP/BI	R R R	2500 2500 2500	100% 2:1 2:1
Traquair							
2	74006	12.2	2027/28	NS/BI MB	R NR/R	2500 1600	2:1 80% native broadleaves
2	74009	5.6	2030/31	MB	NR/R	1600	80% native broadleaves
2	74015	28.5	2030/31	SS/SP	R	2500	2:1
2	74021	3.5	2030/31	MB	NR/R	1600	80% native broadleaves
2	74028	0.4	2030/31	MB	NR/R	1600	
2	74031	7.6	2030/31	MB DF/BI	NR/R R	1600 2500	80% native broadleaves 2:1
2	74053	15.9	2028/29	SS NS/SS	R R	2500 2500	100% 2:1
2	74061	39.4	2032/33	DF/SS SS/SP MB/open	R R R	2500 2500 1600	2:1 2:1 50% native broadleaves
2	74062	23.0	2032/33	MB/MC	R	1600	Groups of scrub woodland at forest edge

2	74066	55.2	2031/32	SS/NS SS/SP SP/NS/MB MB	R R R R	2500 2500 1600 1600	2:1 2:1 6:3:1 50% native broadleaves
2	74070	68.1	2030/31	SS/SP MB	R R	2500 1600	2:1 50% native broadleaves
Thornielee							
2	75010	11.4	2028/29	SS/DF/BI SS/SP SP/BI	R R R	2500 2500 1600	6:3:1 2:1 2:1
Caberston							
2	76009	40.9	2030/31	DF/SS SS/SP MB	R R R	2500 2500 1600	2:1 2:1 50% native broadleaves
2	76024	9.1	2032/33	DF/SS/BI SP/BI MC/MB	R R NR	2500 2500 1600	6:3:1 2:1
2	76034	28.7	2031/32	DF/SS	R	2500	1:1
2	76041	17.4	2029/30	DF/SS/BI SS	R R	2500 2500	6:3:1 100%
2	76044	11.3	2023/24	DF/BI SP/BI MB	R R R	2500 1600 1600	4:1 1:1 80% native broadleaves
2	76047	9.1	2030/31	SP/BI MB	R R	1600 1600	2:1 80% native broadleaves
2	76049	24.4	2030/31	SS/WH SP/BI	R R	2500 2500	2:1 2:1

Total	1021.5

* replant (R) / natural regeneration (NR) / plant alternative area (ALT) / no restocking (None)

3.6 Species diversity and age structure

The following tables show how the proposed management of the forest will help to maintain or establish a diverse species composition and age-class structure, as recommended in the UK Forestry Standard.

Table 7

Plan area by Species						
Species	**Current**		**Year 10**		**Year 20**	
	Area (ha)	%	Area (ha)	%	Area (ha)	%
Sitka spruce	1646.4	46.5	1345.8	38.0	1187.5	33.5
Larch	399.5	11.3	220.0	6.2	137.5	3.9
Douglas fir	185.6	5.2	267.1	7.5	345.4	9.7
Norway spruce	102.1	2.9	157.1	4.4	161.9	4.6
Scots pine	327.9	9.3	449.9	12.7	543.5	15.3
Other conifers	117.7	3.3	75.3	2.1	49.7	1.4
Native broadleaves	112.7	3.2	245.1	6.9	304.6	8.6
Other broadleaves	11.2	0.3	8.9	0.3	8.6	0.2
Open ground/felled	638.5	18.0	772.7	21.8	803.4	22.7
Total	**3542**	**100**	**3542**	**100**	**3542**	**100**

Chart 1

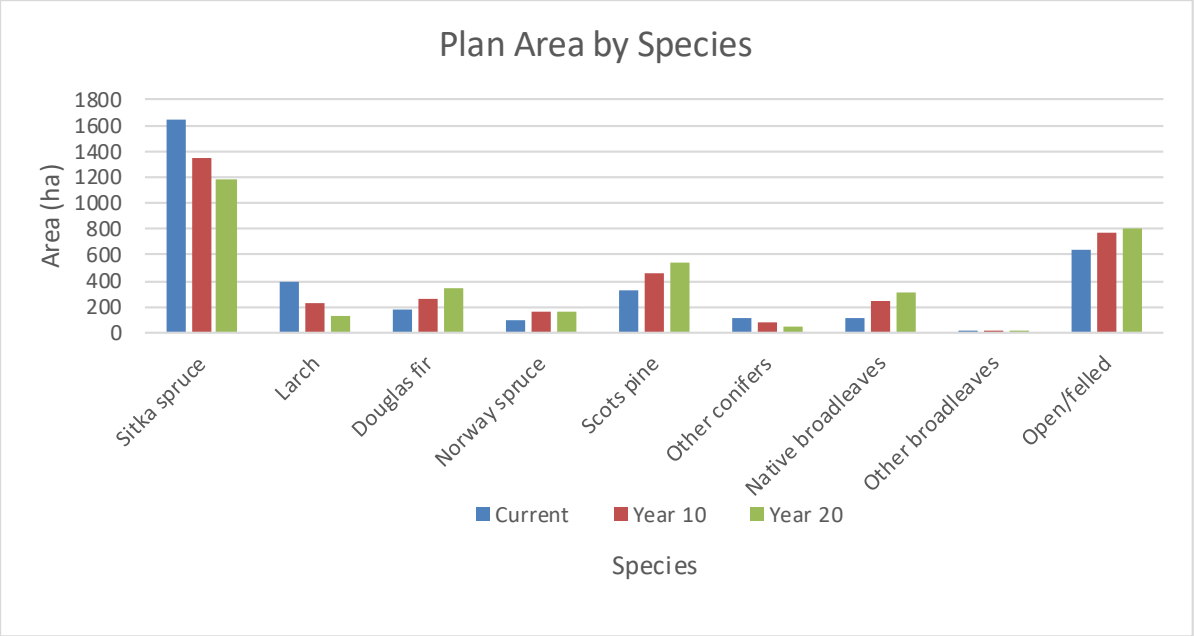
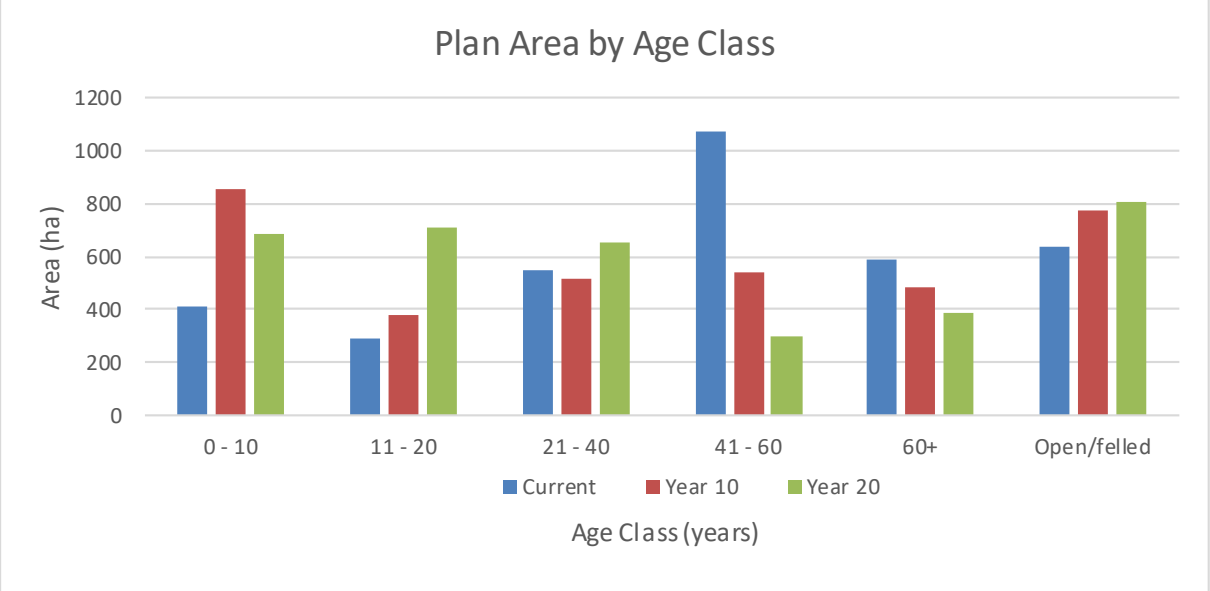


Table 8

Plan area by Age						
Age class (years)	**Current**		**Year 10**		**Year 20**	
	Area (ha)	%	Area (ha)	%	Area (ha)	%
0 – 10	410.9	11.6	850.5	24.0	687.3	19.4
11 – 20	287.1	8.1	375.2	10.6	708.5	20.0
21 – 40	549.8	15.5	517.4	14.6	652.1	18.4
41 – 60	1068.6	30.2	540.8	15.3	301.9	8.5
60+	586.7	16.6	485.2	13.7	388.6	11.0
Open ground/felled	638.5	18.0	772.7	21.8	803.4	22.7
Total	**3542**	**100**	**3542**	**100**	**3542**	**100**

Chart 2



3.7 Road Operations and Quarries

Planned new roads, road realignments, road upgrades, new quarrying, and timber haulage routes are shown on the Road Operations and Timber Haulage map (**Map 7**).

Table 9

Forest Road Upgrades, Realignments, New Roads and New Quarrying				
Phase	Name / Number	Length (m)	Year	Operation
1	T51f	200	2022/23	New road construction [1]
1	T53c	500	2022/23	New road construction [1]
1	T59a	110	2023/24	New road construction
1	T254c	1440	2023/24	New road construction
1	T51b	1670	2021/22	Upgrade (re-surface)
1	T52a - d	1870	2021/22	Upgrade (re-surface)
1	T52e	4510	2022/23	Upgrade (re-surface) [2]
1	T59	2980	2024/25	Upgrade (re-surface) [2]
1	T61	360	2021/22	Upgrade (re-surface)
1	T65	1060	2022/23	Upgrade (re-surface)
1	T91	650	2022/23	Rebuild and widen
1	T251a - b	950	2022/23	Upgrade
1	T70c	2300	2022/23	Upgrade
2	T61	1280	2028/29	Upgrade (re-surface)
2	T71	800	2028/29	Upgrade
2	T71 extension	500	2028/29	Widen access track
2	T251b	750	2029/30	Upgrade

Notes:

1. Already approved with West Bold LMP (approved 11/01/2021).
2. May require roadside felling up to 5m either side of the road.

3.8 Environmental Impact Assessment (EIA)

Any operations requiring an EIA determination are shown in the table below. If required, the screening opinion request form is presented in **Appendix II**.

Table 10

EIA projects in the plan area		
Type of project	Yes / No	Note
Afforestation	No	
Deforestation	No	
Forest roads	Yes	
Forestry quarries	No	

3.9 Tolerance table

Working tolerances agreed with Scottish Forestry are shown in **Appendix IV**.

4.0 Management Proposals – guidance and context

Silviculture
Clear felling and restocking
Coupes for clearfelling and restocking during the plan period (refer to **Map 4 – Management** and **Map 6 – Future Habitats and Species**) Note: restocking details have been given below but final decisions on species mixtures and boundaries and will be taken when detailed site planning is carried out. Phase 1 - Elibank Forest **73015** (2021/22) Predominantly P1957 European and Japanese larch with areas of Scots and Lodgepole pine, Douglas fir and Sitka spruce. A very steep site dominated by shallow brown earth soil, with some scree and rocks, as well as some intergrade ironpan soil. This site was previously designated as a Natural Reserve due to the mixture of mature conifers on a very difficult, steep site. However, due to the threat of *Phytophthora ramorum* (PR), and in line with FLS Larch Strategy, pre-emptive felling is planned to remove the larch. Much of the larch is in pure stands, and where at all possible, non-larch conifers will be retained. The felled areas will be restocked with Scots pine and silver birch in equal proportions, in group mix, with other natural regeneration being accepted, and with approximately 20% open. Once restocked, it is proposed that this coupe be managed as Minimum Intervention, with a view to re-instating as a Natural Reserve. **73022** (2022/23) P1968 Sitka spruce on intergrade ironpan and ranker soils on the north side of Elibank Law. The coupe also includes younger (P1984) Sitka. Part of the coupe has been thinned in the past, and there are large pockets of windblow in the older crop. To be restocked with Sitka spruce/Scots pine (nurse species in intimate mix) and Scots pine/birch in group mix. Restocking will pull the upper treeline back from the hill top, but conifer regen is likely, and subject to available resources, this will be cleared. A degree of conifer regen (10%) will be accepted. Management of the open habitat will tie in with management of adjacent coupe 73021 and existing upland heathland. Re-landscaping the treeline between Elibank law and South Height will also improve the forest landscape as seen from the Southern Upland Way to the south. Phase 1 - Traquair Forest

74002 (2022/23)
Predominantly 1953 Japanese larch with some Scots pine and Douglas fir, on shallow brown earth soils with some rocky areas. The coupe sits on steep slopes to the south east of Plora Wood, straddling a spur adjacent to the FLS woodland creation project at West Bold. In the previous plan, it was proposed that the whole area above Plora Wood would be managed as CCF. However, the difficult ground and lack of previous thinning over much of the area makes CCF unrealistic and this part of the forest has been redesigned to restructure the forest using clearfell coupes and long term retentions. There is a high concentration of larch above Plora and, in line with FLS Larch Strategy, this also enables pre-emptive felling of larch on difficult ground. Additionally, the felling and restocking will enable expansion of broadleaf woodland above Plora Wood.

74002 will be restocked with mainly Norway spruce and birch in group mix on the upper slopes and native broadleaves lower down, with 10-20% open habitat. Scots pine and birch in group mix will be planted on the upper slope to tie in better with 74004. Some conifer natural regeneration is expected in the broadleaf area, and a component of up to 10% will be accepted. The open area on the eastern coupe boundary is designed to create a better boundary with open habitat on West Bold.

74020 (2022/23)
Thinned P1962/63 Douglas fir, Sitka spruce and hybrid larch on brown earths. The coupe straddles the spur of Cadon Bank and has three of the four official Innerleithen downhill mountain bike routes running through it (as well as unofficial trails).

To be restocked mainly with 2:1 Douglas fir/Sitka spruce in intimate mix with some groups of birch to tie in with adjacent broadleaves, and other broadleaves to be planted to help break up the straight line of the forest road and coupe boundary as seen from the west.

74023 (2024/25)
A mixture of P1963/64 Douglas fir, European and hybrid larch, Grand fir and Sitka spruce on a steep slope of brown earth soils. The lower slopes are particularly steep and have not been thinned. Previous aspirations for management as CCF are not possible, and the Caddonbank face will be restructured with a combination of clearfell, long term retention and minimum intervention. Most of Cadonbank is on the Ancient Woodland Inventory as Long-Established of Plantation Origin, with some Ancient of Semi-Natural Origin. 74023 does not include any PAWS woodland, but the longer term aim is restoration to native broadleaved woodland. The coupe contains a significant proportion of larch, and is therefore being felled as a 'difficult coupe', in line with FLS Larch Strategy. Felling the lower part of the coupe may require access racks through adjacent coupe 74024. It will not be accessible from the public road below the forest.

To be restocked with site suitable native broadleaves. Natural regeneration of birch in particular is expected, but this will be supplemented with other broadleaves associated with NVC W11 (upland oak-birch) woodland, including sessile/pedunculate oak, rowan, aspen, holly, hazel and hawthorn. Ideally natural regeneration will be allowed to become established before filling in with other species, but this is a very steep and highly visible

site, and quick restocking is required. An element (<10%) of conifer regeneration will be acceptable, but this will be monitored and controlled as necessary, and more invasive species removed.

74036 (2024/25)
A narrow strip of P1962 Hybrid larch and Sitka spruce on brown earth soils, between the forest road and forest boundary with Traquair Estate.

Restock of native broadleaves to be through natural regeneration, and conifer regen to be monitored and removed if more than 10%.

74039 (2024/25)
A mixture of P1961/62 Japanese and hybrid larch, Sitka spruce and Lodgepole pine on predominantly brown earths. A minor watercourse runs down the southern edge of the coupe, with surface water gleys in the corresponding riparian zone.

To be restocked with Douglas fir/Sitka spruce in intimate mix, with 10% birch in group mixture, native broadleaves/open in the riparian area.

74044 Pipers Knowe (2022/23)
Mainly 1961 Sitka spruce and Lodgepole pine on brown earth, intergrade ironpan and podzolic ranker soils. The coupe also has some poor quality, P1984 Sitka/hybrid larch on the upper slopes of Pipers Knowe. These should also be felled to enable restoration/expansion of upland heathland habitat that connects with Minch Moor.

Otherwise to be restocked with Sitka/Scots pine (nurse species). It is also proposed to include some scrub native broadleaves (e.g. willow, rowan, birch) and conifers (juniper and/or Scots pine) as woodland edge habitat. Areas shown on Map 6 are indicative only, final areas to be agreed when carrying out detailed site planning.

74057 (2024/25)
Mainly P1960 unthinned hybrid larch with some Douglas fir and European larch/Scots pine on brown earths. The Southern Upland Way comes into the forest here, running along the northern boundary of the coupe.

To be restocked with a mixture of Scots pine and broadleaves, with native broadleaves along the front edge of the coupe, to provide a more attractive forest threshold. The Scots pine/broadleaf mixture should be of compatible species and in appropriate group sizes to ensure all components are present throughout the life of the stand.

74068 (2022/23)
P1974 Sitka spruce and hybrid larch on predominantly brown earths. There are some surface water gleys in the riparian zones adjacent to Long Grain and Earn Cleuch watercourses which mark the north eastern and south western coupe boundaries respectively.

To restocked with Scots pine/Norway spruce in group mixt, with 10% birch, and native broadleaves/open in the riparian areas.

74075 (2021/22)
P1957/58 Japanese larch on brown earths on the lower slopes, and mixtures of Sitka spruce/Japanese larch/Lodgepole pine on the intergrade ironpans of the upper slopes. The northern boundary runs up Glen Cleuch, and there are two further watercourses, including Scarf Sike near the southern boundary of the forest. Much of the coupe has been thinned. It incorporates the former natural reserve in the south west corner of the forest, most of which was felled due to infection by *Phytophthora ramorum* and subsequent issue of a Statutory Plant Health Notice (SPHN) in 2018. Many of the remaining conifers have already blown over. The coupe also includes extensive areas of windblow on the upper slopes previously felled.

To be restocked with Scots pine/birch, in group mix, between Scarf Sike and the southern forest boundary, Douglas fir/Sitka spruce in intimate mixture on the main lower slopes and Sitka/Scots pine in intimate mix on the upper slopes. 50% native broadleaves to be planted in the riparian areas.

74078 Lewenshope Burn (2022/23)
P1975 Sitka spruce on predominantly brown earth, with some intergrade ironpan at the top of the slope and surface water gleys in the riparian area at the bottom of the slope. This a steep site with an extensive strip of windblow along the southern coupe boundary. Lewenshope burn flows close to the northern coupe boundary, outside the forest boundary, and an old drove road also runs close to this boundary. There is raptor interest in this part of the forest.

To be restocked with a mixture of Douglas fir and Norway spruce in intimate mix, with 50% native broadleaves concentrated at the northern end of the coupe.

74080 Scaddow Burn (2022/23)
P1975 Sitka spruce on brown earth soil with some surface water gleys in the riparian area at the bottom of the slope. A steep site, with the Scaddow Burn flowing through the south eastern corner of the coupe. There is raptor interest in this part of the forest.

To be restocked with a mixture of Douglas fir and Norway spruce in intimate mix, with 50% native broadleaves concentrated in the riparian area of Scaddow Burn..

<u>Phase 1 - Thornielee Forest</u>
75001 (2022/23)
P1955 Japanese larch/Douglas fir, P1955 Douglas fir/Norway spruce/Sitka spruce and Japanese larch/western red cedar on very steep and stony shallow brown earth. This steep site sits immediately above the busy A72 trunk road and whilst relatively stable with a low risk of windblow, this will increase as the trees continue to grow. More importantly there is a high proportion of larch at risk from *Phytophthora ramorum*, and in line with FLS Larch Strategy this extremely difficult coupe is a high priority for pre-emptive felling.

Site planning will need to take into consideration slope stability (a geotechnical survey has been carried out) and associated risks, steep ground working, overhead power cables beside the A72, proximity to the River Tweed, and several unofficial downhill mountain bike roads landing on the forest road.
Coupes 75001 and 75002 are effectively one coupe, but have been spilt into two due to operational difficulties and the likelihood that they will need to be felled separately.

To be restocked will be with suitable broadleaves to provide long term slope stability. The long term objective is a stable woodland cover to be managed as minimum intervention.

75002 (2022/23)
P1957 Lodgepole pine/Douglas fir/Sitka spruce/Scots pine, Japanese larch, Japanese larch/Scots pine and Scots pine. The slope is very steep in places with patches of scree and boulders across much of the site. As with 75001, the high proportion of larch on steep, difficult ground make this a candidate for pre-emptive felling in accordance with FLS Larch Strategy. Site planning will need to take into consideration slope stability, steep ground working, and unofficial but well established and popular downhill mountain bike trails. Conservation interest includes raptors, badgers and squirrels.

To be restocked with Douglas fir where slope and terrain will be suitable for future management for timber production. Elsewhere to be restocked with Scots pine/silver birch/other broadleaves on more difficult ground (where planting is possible) to aid future slope stability and provide long term woodland cover for biodiversity and landscape benefit.

<u>Phase 1 - Caberston Forest</u>
76001 Harpershiels Burn (2023/24)
P1973 Sitka spruce with a stand of Japanese larch on brown earths. Soils are mainly brown earth, with some shallower skeletal soils, intergrade ironpan on the higher slopes, and surface water gley in the riparian area at the bottom of the slope. Harpershiel Burn is on the southern coupe boundary, with its tributary Red Scar flowing down most of the eastern boundary. A further watercourse flows down close to the western coupe boundary. Some of the coupe has been thinned, notably the less steep upper slopes. Site planning considerations must include unofficial downhill mountain bike trails, prevalent throughout Caberston Forest.

To be restocked with Douglas fir/Sitka spruce on the lower slope, graduating from pure Douglas lower down through intimate mix to pure Sitka higher up, and Sitka spruce/Scots pine (nurse species) on the upper slope. Riparian zones to be restocked with 50% native broadleaves in the lower half of the coupe.

76003 Colquhar Brae (2023/24)
Similar site characteristics to 76001, but the upper third of the coupe has suffered windblow following thinning operations. 76002 immediately to the south was felled and restocked following windblow, making access to 76003 difficult, so it will be combined with 76001.

76003 is difficult to access for forest operations, partly as a result of 76002 having already been felled and restocked following extensive windblow. It will therefore be felled with 76001. Treating these two coupes as one coupe is in keeping with the larger scale landscape of the northern end of Caberston, and these coupes are not highly visible from any key viewpoints.

To be restocked as per 76001.

76007 Troon Hill (Felled 2020/21)
Similar site characteristics to 76001 and 76003, is bounded by Harpershiel Burn to the north and Shaw Burn to the south.

It will be restocked along the same lines as 76001 and 76003.

76017 Priesthope Ridge (2023/24)
P1971 Sitka spruce, Sitka spruce/Japanese larch/Scots pine, Scots pine/Sitka spruce and Japanese larch on ironpans. Some thinning previously carried out on less steep slopes. Site planning considerations include downhill mountain bike trails.

To be restocked with Sitka spruce/Scots pine (nurse species).

76020 The Common (2022/23)
P1970 Sitka spruce, Sitka spruce/Douglas fir, P1969 Sitka spruce/Norway spruce/hybrid larch and hybrid larch on brown earth with some surface water gley in the riparian area of Pious Dean, on the northern boundary. The coupe has had some thinning.

To be restocked with Douglas fir/Norway spruce in intimate mixt with some birch in group mix.

76036 Back Craig (2022/23)
Douglas fir, Lodgepole pine/hybrid larch, Douglas fir/Sitka spruce an Sitka spruce/Lodgepole pine, hybrid larch on mainly intergrade ironpan with some brown earth on the lower slope. Most of this coupe was designated as a Natural Reserve due to the steep, difficult ground and relatively low visual impact. However, due to the threat of *Phytophthora ramorum*, and in line with FLS Larch Strategy, pre-emptive felling is planned to remove the larch from this difficult site.

The upper slopes will be restocked with Scots pine and silver birch, with other natural regeneration being accepted. Once restocked, it is proposed that this coupe be managed as Minimum Intervention, with a view to re-instating as a Natural Reserve. The lower slopes will be restocked with Sitka spruce/Douglas fir in intimate mixture.

76046 Cairn Hill South (2022/23)
P1977 Sitka spruce on stony brown earth with some scree and rock, and a narrow band of peaty surface water gley on the central line of the spur. There is also a small stand of

Scots pine. Site planning considerations include Cairn Hill Scheduled Ancient Monument (SAM), the scheduled area including the cairn and a circle around it of 50m diameter.

To be restocked with Douglas fir/Sitka spruce in intimate mix, although Sitka will be favoured on poorer soils, ensuring an adequate buffer around the SAM. A new forest road will be constructed following felling. Depending on roads programming, restock may be carried out first, ensuring the road corridor is marked and left unplanted.

Phase 2 – Elibank Forest

73016 (2028/29)

P1951 Japanese larch/Douglas fir, Douglas fir/Sitka spruce, European larch/Scots pine, Japanese larch/Lodgepole pine, Sitka spruce/Scotspine and Scots pine on brown earth with some scree and rock. Glengully Burn is on the northern coupe boundary, flowing into Bold Burn which flows close to the forest road on the western coupe boundary. This is a very steep site and has not been thinned. Site planning considerations include proximity to neighbours opposite the forest at Glenmead, and bat boxes in the north west corner of the coupe. If pure Scots pine appears sufficiently stable, consideration should be given to retaining these stands.

To be restocked mainly with Douglas fir/Norway spruce in intimate mixt with birch in group mix, and Scots pine/birch in group mix in the south west corner, tying in with adjacent coupe 73015. Riparian areas to be restocked with 50% native broadleaves, concentrating planting in the north western corner where Glengully Burn flows into Bold Burn.

73023 South Height (202930)

P1968, P1986 and P1990 Sitka spruce on ironpan soil. This coupe has been thinned, and although there is windblow in adjacent coupe 73022, 73023 remains stable (this may change when 73022 is felled).

To be restocked with Sitka spruce/Scots pine (nurse species) in intimate mix. Restocking will pull the upper treeline back from the hill top, but conifer regen is likely, and subject to available resources, this will be cleared. Maintaining open edge habitat will tie in with adjacent coupe 73022 and existing upland heathland on neighbouring land. This will also improve the forest landscape between Elibank law and South Height as seen from the Southern Upland Way to the south.

73039 (2029/30)

This coupe includes a more mature stand of P1959 Sitka spruce/Scots pine along with P1983/84 Sitka spruce. Soils are largely intergrade ironpan with some surface water gley at the head of Scrogbank Burn. Some thinning has previously been carried out but not in the last 10 years.

To be restocked with Sitka spruce/Scots pine (nurse species) in intimate mix, pure Norway spruce and Scots pine/birch in group mix.

Phase 2 - Traquair Forest

74006 (2026/27)

Mainly Japanese larch on brown earth, with a little Japanese larch/Sitka spruce. This is a fairly steep site that has been previously thinned, but not in the last 10 years. Site planning considerations include the cross country mountain bike route through the coupe, and the downhill mountain bike uplift route on the forest road.

In the previous plan, it was proposed that the whole area above Plora Wood would be managed as CCF. However, the difficult ground and lack of previous thinning over much of the area makes CCF unrealistic and this part of the forest has been redesigned to restructure the forest using clearfell coupes and long term retentions. There is also a high concentration of larch above Plora and, in line with FLS Larch Strategy, this also enables pre-emptive felling of larch on difficult ground. Additionally, the felling and restocking will enable expansion of broadleaf woodland above Plora Wood.

To be restocked with native broadleaves on the lower slopes, and Norway spruce/birch in group mix further up the slope. An element of conifer natural regeneration is expected among the broadleaves, and a proportion of about 10% will be accepted.

74009 Armour Burn (2029/30)

Mainly P1953 Japanese larch on brown earth, with a little Scots pine and broadleaves. Below the forest road it is very steep, and part of the coupe was felled in 2018 (using a cable crane system) following the issue of a Statutory Plant Health Notice (SPHN) due to infection by *Phytophthora ramorum*. The Armour Burn runs down the western coupe boundary. Other site planning considerations include the cross country mountain bike route and the downhill mountain bike uplift route on the forest road.

To be restocked with native broadleaves. An element of conifer natural regeneration is expected among the broadleaves, and a proportion of about 10% will be accepted. See Native Woodland section for native broadleaves species rationale.

74015 Plora Craig (2028/29)

P1954 Sitka spruce/Lodgepole pine/Scots pine, P1953 Sitka spruce/Japanese larch/Douglas fir/Scots pine, P1954 Sitka spruce/Douglas fir/Japanese larch and Scots pine. Soils are mainly intergrade ironpan, with some brown earth on lower slopes and podzolic ranker on the ridge top. This is a fairly prominent coupe in the landscape, on the north side of Plora Craig.

To be restocked with Sitka spruce/Scots pine, SP in intimate mix as a nurse species.

74021 (2029/30)

P1963 Douglas fir/Sitka spruce on brown earth soil. The Armour Burn runs down the eastern coupe boundary. Other site planning considerations include the cross country mountain bike route on the forest road.

To be restocked with native broadleaves. An element of conifer natural regeneration is expected among the broadleaves, and a proportion of about 10% will be accepted.

74028 Caddonbank Pacific silver fir (2029/30)
A very small coupe of P1890 Pacific silver fir on brown earth soils. Ideally this stand of uncommon fir trees would be retained, but they appear to be unstable, with individual trees blowing over every year, causing issues for management of mountain bike trails. Other site planning considerations include the presence of red squirrel dreys.

Caddonbank is a on the Ancient Woodland Inventory as 'long-established of plantation origin', with some 'ancient of semi-natural origin', and will be restocked with native broadleaves.

74031 Square Wood (2029/30)
P1963 European larch/Douglas fir and Lodgepole pine/hybrid larch on brown earth soils. This steep site is fairly prominent in the landscape and has three of the four official downhill mountain bike trails running through it as well as push-up track.

To be restocked mainly with native with broadleaves. An element of conifer natural regeneration is expected among the broadleaves, and a proportion of about 10% will be accepted. DF to be planted at the top of the site, to tie in with 74020 and help break up the straight road line and species boundary.

74053 Upper Minch Moor Burn (2026/27)
P1985 Sitka spruce on a mixture of soils: brown earth, intergrade ironpan and surface water gley at the head of Minchmoor Burn which borders the south eastern edge of the coupe.

To be restocked with pure Sitka spruce and Norway/Sitka spruce, the latter in intimate mix on the gley soils.

74061 (2030/31)
P1960 Sitka spruce/Lodgepole pine, hybrid larch/Sitka spruce/Lodgepole pine/grand fir, Japanese larch, Japanese larch/Douglas fir, Japanese larch/Lodgepole pine, European larch/Scots pine and Lodgepole. Soils are brown earth on the lower and intergrade ironpan on the upper slopes. Hazel Cleuch flows along the southern coupe boundary, with Stell Cleuch on the western boundary flowing into it. Birkie Cleuch flows through the centre of the coupe into Hazel Cleuch. The cross country mountain bike trail follows the line of an old drove road through the coupe, east of the forest road.

To be restocked with Douglas fir/Sitka spruce in intimate mix below the road, with Scots pine/Norway spruce in group mix lower down the slope, and native broadleaves in the riparian areas. Sitka spruce/Scots pine (intimate mix nurse species) to be planted above the road.

74062 (2030/31)
This is an area of poorer P1984 Sitka spruce and Hybrid larch/Sitka spruce adjacent to Minch Moor Upland Heathland habitat. The cross country mountain bike trail runs

through the coupe The opportunity will be taken to fell this coupe with adjacent coupe 73061, to enable it to be restored to Upland Heathland. This is likely to require non-profitable harvesting and additional cost to remove subsequent conifer natural regeneration, and may therefore be dependent on additional resources via an Environment project. There may be subsequent opportunities to fell this coupe in the future, perhaps with 74064.

While restoration to upland heathland is the main objective, it is proposed to plant some areas of edge woodland with suitable species such as rowan, birch and ideally juniper.

74066 Hare Law (2029/30)
P1973/75 Sitka spruce on a mosaic of brown earth, surface water gley and intergrade ironpan soils. This steep coupe is bounded by privately owned coniferous forest to the east, Short Grain burn to the west and south, and the Southern Upland Way to the north.

To be restocked mainly with Norway/Sitka spruce, the Norway on the gley soil, with some Sitka spruce/Scots pine (nurse species in intimate mix), and native broadleaves in the riparian areas. Permanent open habitat will be maintained adjacent to the Southern Upland Way along the north eastern coupe boundary.

74070 Black Rig (2028/29)
P1967 and P1975/76 Sitka spruce on a mosaic of intergrade ironpan, podzolic ranker, peaty surface water gley and surface water gley soils. Some steep slopes, especially the eastern side of the coupe. There are two watercourses: Scaddow Burn starts on the lower southern slopes of the coupe, and Earn Cleuch on the northern boundary. An old drove road runs through the north eastern part of the coupe and although it is not visible through the canopy there may be evidence on the ground.

To be restocked with Sitka spruce/Scots pine (nurse species in intimate mix) and some native broadleaves in the riparian areas. Some open habitat will be maintained at the northern end of the coupe, linking with Minch Moor.

Phase 2 - Thornielee Forest
75010 Shanny Rig (2026/27)
P1980 Sitka spruce with brown earth on the lower slopes and intergrade ironpan/podzolic ranker on upper slopes. Much of the coupe has been previously thinned.

To be restocked with Sitka spruce/Douglas fir, pure Douglas lower down the slope, through an intimate mix to pure Sitka higher up the slope. Sitka spruce/Scots pine (as nurse) in intimate mix on the poorer soils of the upper slope.

Phase 2 - Caberston Forest
76009 Turf Knowe (2028/29)
P1971/72/73 Sitka spruce, P1972 Sitka spruce/Douglas fir, P1972 Sitka spruce/Japanese larch, P1973 Douglas fir, P1973 Japanese larch, P1973 Noble fir. Soils are brown earth on lower slopes and intergrade ironpan, with some surface water gley. There are two

watercourses: Shaw Burn on the northern coupe boundary and the upper reaches of Middle Burn on the southern boundary. The upper slopes, on the west side of Priesthope Hill are steep, in excess of 50% in the north east of the coupe. This part of Caberston has many unofficial downhill mountain bike trails.

To be restocked with Douglas fir/Sika spruce on the lower slopes, pure Douglas lower down the slope, through an intimate mix to pure Sitka higher up the slope. Sitka spruce/Scots pine (nurse species) to be planted on the upper slopes, and native broadleaves in the lower riparian areas.

76024 Pirn Craig SW (2030/31)
P1968/69 Douglas fir/Sitka spruce, Sitka spruce/Scots pine/hybrid larch, hybrid larch, Sitka spruce/Scots pine and mixed conifers/open on brown earth soil with some skeletal soil and rocky areas. This is a steep site on the lower south western slopes of Pirn Craig, in excess of 50%, and 60% slope in some areas.

To be restocked with Douglas fir/Sitka spruce in intimate mix with groups of birch, and Scots pine/birch in group mix.

76034 Kirnie Law (2029/30)
P1966 Sitka spruce/hybrid larch/Lodgepole pine, Douglas fir/Sitka spruce, Douglas fir, Japanese larch/Douglas fir, Sitka spruce/Douglas fir, Sitka spruce/Japanese larch/Scots pine and Lodgepole pine/Sitka spruce/Scots pine/Japanese larch. Soils are brown earth on lower and intergrade ironpan on upper slopes. The northern part of the coupe, on the eastern side of Kirnie Law is steep with slopes in excess of 40%, up to 50% in places. There is a path up to Kirnie Law, and several unofficial mountain bike trails through the site.

To be restocked with Douglas fir/Sitka spruce, pure Douglas lower down the slope, through an intimate mix to pure Sitka higher up the slope.

76041 Highland Knowe (2027/28)
Mainly P1977 Sitka spruce, with an awkward, angular strip of Scots pine (plus some birch/open) on the south slope of Cairn Hill that stands out in the landscape. Soils are brown earth on the lower slopes and brown earth/scree/skeletal soil on the upper slopes. A steep site with most slopes over 40%.

To be restocked with Douglas fir/Norway spruce in intimate mix on the lower and pure Sitka on the upper slope.

76044 Walkerburn Spur (2026/27)
Predominantly P1977 Sitka spruce on brown earth, but with an awkwardly shaped band of Japanese larch on the lower south eastern slope above the forest boundary. The coupe sits on a highly visible spur above Walkerburn, and has been designed to enable felling of the larch with the spruce, while reducing the overall landscape impact (leaving coupe 76045). The larch is being targeted due to the threat of *Phytophthora ramorum*, and in

line with FLS Larch Strategy. Harvesting access from the end of the existing forest road will be difficult and require careful site planning. There is an unsurfaced footpath following the ride down the centre of the spur, and an unofficial downhill mountain bike trail winds its way through the coupe.

To be restocked with Douglas fir/birch in group mix, with broadleaves in the southern part to expand the broadleaved woodland above Walkerburn, and Scots pine/birch on the lower south eastern slope. The latter will tie in with adjacent coupe 76047 (see below), to be managed as future minimum intervention (natural reserve).

76047 Old Caberston (2029/30)
Mainly P1977 Japanese larch with some Sitka spruce, European larch/Sitka spruce and P1988 Sycamore. Soils are brown earth with patches of scree and rock. A steep site with slopes between 35% and 50%.
This site was previously designated as a Natural Reserve (along with part of adjacent coupe 76048) due to the steep and inaccessible ground. However, due to the threat of *Phytophthora ramorum* (PR), and in line with FLS Larch Strategy, pre-emptive felling is planned to remove the larch.

Sycamore will be retained and the rest of the coupe restocked with Scots pine and silver birch, in group mixt, with other natural regeneration being accepted. Once restocked, it is proposed that this coupe be managed as Minimum Intervention with a view to re-instating as a Natural Reserve.

76049 Drumquillian (2028/29)
P1978/82 Sitka spruce and P1978 Norway spruce. Soils are a mosaic of ironpan/peaty surface water gley, ironpan/rankers, peaty surface water gley/ironpan and peaty surface water gley/rankers, with a little surface water gley. Fairly steep slopes mostly between 30% and 40%.

To be restocked with Sitka spruce/western hemlock in intimate mix, and Scots pine/native broadleaves in group mix at the northern end, the latter with the potential to be managed as minimum intervention in the future.

Thinning

Refer to **Map 5 - Thinning**

This covers an area of 1110 ha

Thinning will normally be carried out at, or below, the level of marginal thinning intensity (i.e. removing no more than 70% of the maximum MAI, or YC, per year). Higher intensities (no more than 140 % of maximum MAI, or YC, per year) may be applied where thinning has been delayed, larger tree sizes are being sought or as part of a LISS prescription. In all cases work plans will define the detailed thinning prescription before work is carried out

and operations will be monitored by checking pre and post thinning basal areas for the key crop components.

Map 5 shows all potential thinning coupes, but the final thinning area for each coupe may be reduced once each stand has been assessed. Some coupes may be judged not yet ready for a first thin, some may have missed the thinning window, and some potential subsequent thinning coupes may now be beyond further thinning. The map also includes some minimum intervention areas where removal of non-native conifers may effectively constitute a thinning operation.

Thinning has previously been carried out extensively across the LMP area, where site conditions have allowed, mostly using a standard line thin. Some stands, in particular on steeper slopes, have not been thinned for over 10 years, and further thinning may not be possible. There are few significant areas of windblow across the LMP area, suggesting that appropriate and timely thinning has generally been carried out. Where there are more significant pockets of windblow in thinned stands, it is likely that thinning has been carried out sites that are too exposed and/or has been started too late.

The Windiness map (map 9) gives a good indication of where thinning should be possible on sheltered or less exposed sites. On more exposed sites, thinning may still be possible on suitable soils that provide good rooting and if thinning is carried out early enough. In this plan period several younger coupes will reach a stage to be considered for first thinning. It is important that these coupes are assessed early enough to enable early intervention where appropriate.

Areas to be managed with low impact silvicultural systems (LISS) will continue to be thinned in accordance with specific LISS plans. There may be scope to develop additional areas for LISS management, and timely first thinning and subsequent crown thinning will keep these options open.

Low Impact Silvicultural Systems (LISS)

Elibank

A separate LISS Plan was produced in 2015 for the following coupes and is available from South Region Planning Team.

Elibank Craig (East)
73026 - uniform shelterwood
73100 - 73107 - group shelterwood
73110 - 73116 - strip shelterwood

Felling of the first groups and strips and thinning of the rest of the coupes was planned from 2015, but so far only the first groups 73100 have been felled, and no restocking carried out. There has been some natural regeneration in these groups but some restocking and/or enrichment is required, and this will be programmed as soon as possible. To ensure adequate restocking in these first groups, it is proposed to delay

felling of the next groups until 2027/28, but to continue with thinning the whole area as soon as possible in phase 1 of the LMP.

Elibank Craig (West)
73034 - single tree selection
73035 - uniform shelterwood
73120 - 73127 - group shelterwood
73130 - 73136 - strip shelterwood
73140 - 73144 - group shelterwood

No group or strip felling has taken place yet, and this will be a priority in phase 1 of the LMP, along with thinning of the rest of the LISS area. Given the delay in implementing the LISS Plan, it will be reviewed prior to detailed site planning, to check that prescriptions are still viable.

Traquair
In the previous forest design plan for Elibank and Traquair, there was aspiration for a substantial area on the highly visible slopes of Plora and Cadonbank to be managed using LISS. Much of this area is exceptionally steep and has not been previously thinned (or not for many years), and is no longer considered suitable for managing as LISS. These areas have been redesigned as clearfell coupes and long term retentions.

74008
A less steep site of P1994 SS and intruded broadleaves on brown earth soil. The Sitka will be gradually thinned out and birch and other broadleaved regen favoured, removing Sitka regen as necessary. Any enrichment of natural regeneration will be with longer-lived native broadleaves including oak.

Further opportunities will be sought to develop LISS management in suitable coupes where LISS will fit with management objectives.

Caberston
As with Traquair, there was previously aspiration for some highly visible slopes to be managed as LISS. For the same reasons, these areas have been redesigned as clearfell coupes or long term retention.

Thornielee
The following three coupes have been identified for possible future management as LISS. These areas will continue to be crown thinned and more detailed LISS prescriptions will be developed.

75013
P1980 SS, NS and HL on mainly brown earth soil with some surface water gley.

75016

P1957 JL, SP/EL, LP/JL, LP/JL/SS/SP, JL/DF, DF, P1980 NS and P1989 DF. Soils are shallow brown earth with some very shallow and rocky areas.

75017
P1980 SS, HL, SP, GF, P1956 SP/JL and DF/NS on brown earth soils.

Long term retentions / minimum intervention / natural reserves

Long term retention (LTR)
There are 20 LTRs of various sizes, shapes and species compositions throughout the LMP area, totalling some 150 ha or nearly 5% of the total woodland area. While some are on moderately exposed sites most are on more sheltered sites and many have been previously thinned, so these coupes have a reasonable degree of stability. In Elibank, Traquair and Thornielee the LTRs are mostly 60-70 years old, and composed of a variety of species including Scots pine, larch, Douglas fir and Norway spruce.

Together with areas of Minimum Intervention and Natural Reserves these coupes will provide valuable habitat for a variety of species, in particular potential raptors nesting sites, as the surrounding forest continues to undergo restructuring through clearfelling and restocking. Some LTRs are already host to important nesting sites, and one is home to an active heronry (74001).

LTRs will be considered for further thinning, to aid long term stability, improve timber quality, and improve habitat value.

Minimum intervention (MI)
This is the most appropriate type of management for the main riparian corridors where native broadleaves are well enough established, or where further natural regeneration is expected with minimal management input. It is also appropriate in forest boundary areas where predominantly broadleaves have been established. The main objective is conservation and enhancement of biodiversity, but there are clearly benefits for landscape and general amenity too.

Many such areas are smaller components of other, mainly clearfell, management coupes, but some larger MI coupes have been specifically designated, some 116 ha in total. In time, the number and size of specific MI coupes will increase.

Management in MI areas will be restricted to tree safety work close to paths and public access, tree felling resulting from statutory plant health notices, and removal of excessive invasive non-native species.

Natural Reserve (NR)
Existing natural reserves in TVFP include several with a high proportion of larch on steep sites. Due to the threat of Phytophthora ramorum (PR), and in line with FLS Larch Strategy, pre-emptive felling is planned to remove the larch from some of these sites, effectively de-classifying them as NRs. This is being taken into account in the Regional review of NRs. Alternative areas have been identified to compensate to some extent for

the loss of NRs in the Tweed Valley, but the balance may need to be found elsewhere in South Region.

Coupe 73015 in Elibank falls into this category, and will be felled in Phase 1 of the LMP. However much of the larch is in pure stands, and where at all possible, non-larch conifers will be retained. The felled areas will be restocked with Scots pine and silver birch, with other natural regeneration being accepted. Once restocked, it is proposed that this coupe be managed as MI, keeping the option open to re-instate as a NR. Similarly, two NRs in Caberston will be felled; the first in coupe 76036 the second split between coupes 76047, 76048 and 76049.

Three NRs are included in this LMP, totalling 55 ha.

73027

Mixed, semi-mature conifers, mainly Scots pine and Japanese larch, with some Sitka spruce, Lodgepole pine and broadleaves, on the fairly steep and rocky north face of Elibank Craig. Soils are shallow, rocky brown earth. *Phytophthora ramorum* poses a threat to the larch, but the site should still be viable as a NR if the larch has to be felled.

73044

This is a new proposed NR combining previous LISS, MI and clearfell coupes. The conifer element is mainly well-thinned semi-mature Scots pine, Sitka spruce and Norway spruce (P1946/50), but includes some younger Sitka (P1980s). Broadleaves include P1980s oak and birch. Pond Wood, P1960s broadleaves on long-established of plantation origin is also included. Periodic tree safety work may be required adjacent to the forest road, and on the forest boundary.

76016

This is a very steep site with unthinned P1970/71 Sitka spruce/Scots pine on scree, brown earth and intergrade ironpan soils.

Tree species choice / Restocking

Refer to **Map 6 Future Habitat and Species**

With a high proportion of forest brown earth soils on the lower slopes and a range of other soils types, combined with favourable climatic conditions, the forests of the Tweed Valley offer opportunities for a range of species to satisfy a variety of management objectives. In particular, the ability to increase species diversity is seen as a means of developing greater resilience across the forests, in response to the challenges associated with climate change.

Desk-based Ecological Site Classification (ESC) confirms the suitability of several conifer species, in particular Douglas fir, as an alternative to Sitka spruce for timber production. Although Sitka spruce will continue to be the primary species for timber, the proportion of the forest will fall over the plan period from 46% to 38%, dropping to 33% by year 20.

As well as increasing species diversity across the forest as a whole, opportunities will be taken to increase species diversity within stands by developing suitable species mixtures.

Recent guidance from Forest Research suggests that robust species mixtures can be established providing the species are sufficient compatible, based on growth rate and shade tolerance. Depending on the level of compatibility, species mixtures can be in intimate or suitable sized group/line mixture.

Larch currently accounts for 11% of the LMP area, with much of that concentrated on the north and west facing slopes overlooking the valley, notably above Plora Wood. To slow the spread of *Phytophthora ramorum* in larch, FLS Larch Strategy requires a major reduction of the area of larch, and restocking with larch is not an option. The proportion of larch will therefore reduce to 6% by Year 10 and 4% by Year 20. There are no alternative conifers that offer such good colour contrast in the landscape, as well as providing timber and biodiversity benefits. However, an increase in other alternative conifers, with a proportion of birch or aspen in mixture, will offer some compensation and there will be a significant expansion in native broadleaves on the Plora face.

There will be an increase of Douglas fir from 5% to 7% by year 10 and 10% by year 20. ESC suggests Douglas fir is suitable on a far greater range of sites than currently planted, but this will need to be confirmed by field staff with local knowledge on a site by site basis. Where a mixture of Douglas fir and Sitka spruce or Norway spruce is specified, pure Douglas fir is envisaged on the most suitable parts of a site, graduating to a mixture and then pure spruce.

There will be a more modest increase in the proportion of Norway spruce form 3 % to 4% in Year 10 and 5% in Year 20. As well as being an important timber species, all be it of generally lower yield class than Sitka spruce, it is a valuable conifer for red squirrels. It will be favoured over Sitka on sites with a high proportion of surface water gley soils.

Scots pine is an important conifer in the LMP area, offering landscape, biodiversity and general amenity benefits, as well as reasonable timber if well managed. It currently occupies 9% of the LMP area, increasing to 13% by year 10 and 15% by Year 20. Much of this increase is accounted for by the choice of Scots pine as a nurse species for Sitka spruce on nutrient poor sites where heather check may be an issue. Some steep sites with thin/skeletal soils, scree and rocks will be restocked with Scots pine in mixture with birch and other broadleaves. Objectives for these sites will be slope stability, biodiversity, landscape and general amenity, and minimum intervention is the likely future management, once established.

Western hemlock is proposed on one site in Caberston where ESC predicts that it will be far more productive (in terms of yield class) than Sitka spruce or any other conifer.

The rationale for native broadleaves is covered in the Native Woodland section below. Restocking with and management of broadleaves will be carried out to enhance biodiversity, landscape and general amenity. In particular, where larch is being removed from the landscape, birch and other broadleaves can offer some mitigation and 'lightening' of an otherwise darker conifer landscape. While there may be scope for some hardwood timber production in the future, it is not an LMP objective.

Non-native broadleaves are a feature of the Tweed Valley, notably beech and sycamore, in small patches of woodland and field boundaries. These species are present in small numbers in the forest, and providing they do not conflict with other objectives such as expanding the native woodland buffer above Plora, they will be accepted as a component of the forest. Indeed, they can provide a number of landscape, biodiversity and silvicultural benefits, such as soil improvement. As ash is currently not an option for planting, consideration will be given to sycamore as an alternative to substitute for some of the ecological function of ash.

Natural regeneration

Clearfell coupes will be assessed for signs of natural regeneration ahead of felling and where there is encouraging evidence, this will be factored into restock proposals. Where the desired restock species, or an acceptable alternative, is present, we will endeavour to achieve the required restocking density with natural regeneration, beating up as necessary by year 5. Where management through continuous cover forestry is planned, and the current species is desired in the next crop, natural regeneration will be encouraged.

Dense natural regeneration is likely to require respacing, or if this is not achieved in time, premature clearfell and restock. Where natural regeneration is not the desired species or an acceptable alternative, or is not appropriate for the specified land use (e.g. managed open ground), it will be considered against the plan objectives and tolerance table, and either accepted (with a plan amendment if necessary) or removed.

In riparian areas, where native broadleaves are established through planting or previous natural regeneration, it is expected that this will provide the seed source for further expansion of native woodland. Excessive natural regeneration of non-native conifers can pose a threat to this habitat and this will be monitored.

New planting

No new planting is proposed in this LMP.

Protection

Deer management

The LMP area part of Deer Management Unit 9 – Tweed. Roe is the main deer species throughout the LMP area, but the Sika population is expanding along the south side of the valley from Cardrona. Sika have been present in Traquair and Elibank Forests for the last 10 years, staying mainly south of the Southern Upland Way.

Main objectives within the DMU are:

- To enable re-stocking to take place without the need for deer fencing and to achieve the appropriate stocking density at year five in accordance with OGB 4.
- To maintain a sustainable deer population.
- To limit the expansion of the Sika deer range and population.

In South Region there is a presumption against erecting physical protections against deer for most crop species, so culling will be the main method of control. Culling targets will be set based on damage impact assessments (of restock sites) and deer population modelling. Currently deer densities are thought to be too high to facilitate fenceless establishment of high quality crops throughout the LMP area, so culling intensities will be slightly increased and sustained during the plan period.

This plan proposes an expansion of softer conifer species and broadleaves, as well as some LISS management, all of which will pose challenges to deer management. Additionally, high recreational use of large parts of the forest, including where many of the softer conifers and broadleaves are proposed, will make deer culling operations more difficult.

Where possible, areas of soft conifers and broadleaves will be established on easily accessible, defendable and consolidated sites. Where economies of scale permit, deer fencing will be considered, but only in exceptional circumstances.

The use of tree tubes will be considered on a site by site basis, and may be used to protect broadleaves where other options for protection are considered ineffective. Once tree tubes are no longer required they will be removed and disposed of appropriately, unless they are biodegradable in which case they may be left on site. Moving forward, all new tubes will be recycled via suppliers, once no longer required.

In recent years the local wildlife ranger has increased ranger infrastructure, and opportunities will be taken to optimise this during site planning for restock coupes.

Pests and diseases
The main tree diseases are outlined in Appendix 1.

Phytophthora ramorum (PR) continues to pose the main threat. Aerial surveys of the forest are usually carried out by Scottish Forestry twice annually, and staff routinely monitor tree health when in forests. While FLS Larch Strategy proposes a 50% reduction in larch by the end of 2023 in Zone C, in the Tweed Valley the intention is to retain a proportion of larch for as long as possible.

Early/pre-emptive felling of coupes with pure or a high proportion of larch will focus on difficult sites (usually very steep and less accessible), and those where future infections could cause major disruption to recreational users. On highly visible slopes such as Plora and Caddonbank in Traquair Forest, with high concentrations of larch, the felling plan has been designed to reduce the visual impact, and larch removal will take several felling phases. This assumes no further PR infection which would of course change the situation dramatically.

Fire

There have been few major fire incidents in the LMP area in recent years, but with potentially drier summers, high recreational use and neighbouring heather burning practice, the risk is always present.

FLS continues to work closely with the Scottish Fire and Rescue Service (SFRS) to prevent and tackle wildfires that threaten Scotland's National Forests and Land. FLS support SFRS in their lead role for fire prevention and suppression through creating annual fire plans, maintaining a duty rota, and providing additional logistical support. FLS's primary objective is always to protect people's health, safety and wellbeing.

Road operations

Refer to **Table 9** and **Map 7 - Roads**

The LMP area has an extensive and well-maintained forest road network, but several major road upgrades are planned during the plan period to service the harvesting and restocking programmes and access for forest management and stewardship activities.

A new forest road is planned in Caberston to provide access to the forest on the eastern side of Cairn Hill. A short section of new road is also planned in Elibank to provide access to the woodland creation project at Ashiestiel.

Two new sections of forest road are also planned in Elibank and Traquair, to provide access to the woodland creation project at West Bold. These have already been approved as part of the West Bold LMP.

No new quarries or expansion of existing quarries is proposed in this plan period. Blasting will be carried out periodically during the plan period to obtain stone. All quarrying works will be carried out in accordance with the Quarry Regulations 1999 and Explosives Regulations 2014.

Haulage of timber and stone is carried out following industry best practice for timber transport, and issues addressed through the local Timber Transport Forum.

Biodiversity

Designated sites

River Tweed Site of Special Scientific Interest (SSSI)/Special Area for Conservation (SAC) - watercourses are tributaries of the River Tweed SSSI. Refer to section on Watercourse Condition below.

Plora Wood SSSI

Refer to description in Appendix 1 and Native Woodland section below.

Native woodland

Native woodland (mainly small areas of mixed broadleaves in the sub compartment database) currently occupies only 3% of the LMP area, but this will rise to 7% by Year 10 and 9% by Year 20.

The main focus of native woodland expansion is on the slopes of Plora and Caddonbank, on the north side of Traquair Forest. Plora Wood SSSI (mostly managed by Woodland Trust Scotland) is undergoing a long term restoration to native woodland. The small part of the SSSI managed by FLS will be monitored for conifer natural regeneration, and this cleared as necessary. As conifers on FLS land, predominantly larch, are felled, the slopes above Plora Wood will be restocked with native broadleaf species. Choice of species will be guided by ESC and NVC woodland type, in this case the most suitable is likely to be NVC W11 upland oak-birch: sessile/pedunculated oak, silver/downy birch, rowan, holly, aspen, hazel, hawthorn, juniper.

Elsewhere conservation efforts will focus on improving the riparian habitat network and forest fringe, where broadleaves often link in with neighbouring broadleaf woodland, shelterbelts and field boundaries. Choice of species will be guided by ESC and NVC woodland type, most likely NVC W4 in the riparian areas: downy/silver birch, willow (goat/grey/eared/bay), alder, with some NVC W7: alder, birch, goat willow, pedunculated/sessile oak, rowan, holly, bird cherry, grey sallow, hazel, hawthorn (but no ash due to ash die-back). Most broadleaved areas are specified as 50% MB with 50% open – precise siting of the broadleaves will be agreed at the more detailed site planning stage, and there may be some flexibility with conifer/broadleaf boundaries. On sites where protection from browsing poses a significant challenge to establishment, more robust species such as willow and birch may be favoured. While birch has generally been specified in the LMP to plant in mixture with Scots pine and other conifers, it is hoped that aspen will in due course feature more prominently, once it is more readily available and can be adequately protected from deer browsing.

An increasing area of connected native woodland and open ground will provide habitat opportunities for a variety of flora and fauna. Increasingly these areas will be managed as minimum intervention.

Main areas for native woodland expansion such as Plora and Caddonbank will be restocked through natural regeneration and/or planting at 1600 stems/ha covering at least 90% of the site. Open/shrubby patches will be expected as part of the woodland habitat, and a small proportion (< 10%) of conifer natural regeneration will be accepted. Indeed, some conifer mixed with the broadleaves will add to the all year round visual diversity and general amenity. Regeneration by more aggressive, invasive non-native species will be monitored and controlled as necessary.

PAWS

There is only one small area of PAWS in the LMP area, at Caddonbank in Traquair Forest, as outlined in the Biodiversity Section of Appendix 1.

Larch thinning will be carried out during the plan period, and has been included on the Thinning Map. This is a very complicated site with difficult operational access and a high concentration of mountain bike routes, and will require careful planning. Ideally all the

larch will be thinned out in Phase 1 and in one operation, due to the threat from Phytophthora ramorum and to avoid having to return for subsequent operations.

Protected and priority habitats and species

All forest management operations involve a work planning process before work commences which includes checks for wildlife and important habitats. This will ensure adequate protection of important species and habitats, that licences are in place where necessary, and appropriate mitigation measures are taken. Several species are highlighted in Appendix 1 (Description of Woodlands), including raptors, red squirrels and badgers.

Across the LMP area a whole, conservation efforts will focus on improving the riparian habitat network, through the on-going process of forest restructuring (mainly clearfell and restocking). An increasing area of connected native woodland and open ground will provide habitat opportunities for a variety of flora and fauna. Increasingly these areas will be managed as minimum intervention (MI). Within the forested area, natural reserves (NR) and long term retentions (LTR) will provide more mature/semi-mature woodland, with some stands developing 'old growth' characteristics. Well thinned areas will provide opportunities for raptors to nest, and improve ground vegetation conditions for other wildlife.

Upland Heathland

Existing areas of Upland Heathland on the higher ground of the LMP area, noted in Appendix 1, are generally clear of invasive species and in reasonable condition. Options will be explored to expand and improve the upland heathland habitat by removing adjacent poor conifers (coupes 73019, 73021 and 74062). Felling of 76042 is proposed in Phase 2 of this plan. This is likely to require non-profitable harvesting and additional cost to remove subsequent conifer natural regeneration, and is likely to require additional resources via an Environment project.
Conifer regeneration on open upland heathland habitat will be monitored and controlled as necessary, aiming for early removal of excessive regeneration.

Raptors

As outlined above, development of LTR, NR and MI and well-thinned mature/semi-mature stands will provide potential raptor nesting sites. As younger stands develop and are thinned, suitable future retentions will be identified. All raptor nest sites are monitored throughout the year, and any chicks ringed. In recent years several artificial platforms have been erected in the forest, to provide safe, attractive nest sites for the area's expanding range of raptors. A number of owl boxes have been put up, and are being used throughout the forest by both barn and tawny owls.

Black grouse

Although there no current black grouse lek sites within the LMP area, the open heathland and forest edge habitat provides potential breeding habitat, shelter and food sources. Opportunities will be taken to improve forest edge habitat as coupes are felled and restocked, in particular along the southern and south eastern forest boundaries of Elibank

and Traquair. Small areas (< 2ha) of native scrub woodland, such as birch, rowan, eared willow, hawthorn and juniper, will be created on the fringe of Minch Moor and near Middlebar Knowe. Opportunities will be sought at other suitable locations, during the work planning process, when more detailed site planning is carried out.

Red Squirrels

The plan includes areas to be managed as NR, MI and LTR, all of which will contribute to suitable red squirrel habitat, along with an increase in the proportion of Scots pine and Norway spruce. NR and LTR coupes will lead to more mature/semi-mature woodland, with some stands developing 'old growth' characteristics.

Open ground

Open ground currently accounts for around 17% of the LMP area, with that expected to rise to 20 % by Year 10 and 21% by Year 20. Much of this is managed open habitat associated with upland heathland, and the increase reflects a modest expansion in this habitat. Elsewhere there will be a modest increase in successional open habitat, notably where riparian corridors are being expanded.

The butterfly meadow at Thornielee will continue to be managed as open habitat. Ideally this will involve conservation grazing, but we will continue to carry out scrub and bracken control to maintain habitat suitable for butterflies.

Dead wood

Opportunities for retaining and creating deadwood will be identified during the work planning phase of all felling and thinning operations, favouring areas with the highest deadwood ecological potential.
Natural reserves, minimum intervention areas, ancient semi-natural woodland and riparian zones offer some of the best opportunities for the development of standing and fallen deadwood. Where it is safe to do so, standing mature dead trees will be retained as these offer excellent potential for a range of species.

Invasive species

Grey squirrel

FLS will continue to support efforts by Saving Scotland's Red Squirrels to reduce grey squirrel numbers in TVFP. Trapping of grey squirrels will be carried out in Upper Tweed Valley Priority Area for Red Squirrel Conservation (PARC), focusing on forest edges around Peebles and Innerleithen that are considered to be hot spots and sources of spread by grey squirrels.

Historic Environment

Refer to **Map 11 Heritage** and **Appendix V Historic Environment Records**.

Our key priorities for archaeology and the historic environment are to undertake conservation management, condition monitoring and archaeological recording at significant historic assets; and to seek opportunities to work in partnership to help to

deliver Our Place in Time: the historic environment strategy for Scotland (2014) and Scotland's Archaeology Strategy (2015). Significant archaeological sites will be protected and managed following the UK Forestry Standard (2017) and the FCS policy document Scotland's Woodlands and the Historic Environment (2008). Harvesting coupes, access roads and fence lines will be surveyed prior to any work being undertaken in order to ensure that upstanding historic environment features can be marked and avoided. At establishment and restocking, work prescriptions remove relevant historic environment features from ground disturbing operations and replanting. Where appropriate, significant historic assets are recorded by archaeological measured survey. Opportunities to enhance the setting of important sites and landscapes will be considered on a case-by-case basis (such as the views to and from a significant designated site).

The Regional Historic Asset Management Plan includes conservation management intentions for designated historic assets on Scotland's national forests and land. Details of all known historic environment features are held within the Forester Web Heritage Data and included within work plans for specific operations to ensure damage is avoided. Significant historic environment features will be depicted on all relevant operational maps.

Designated sites

There are five designated sites inside the LMP area, all in Caberston Forest,

- Pirn Wood (SAM)
- The Common (Torykneis) (SAM)
- Cairn Hill (SAM)
- Walkerburn Cairn (SAM)
- Kirnielaw Pumping Station (Category 'B' Listed Building)

These are included in Part 2 of the Regional Historic Asset Management Plan, where details of conservation management and monitoring are recorded. These sites will be monitored and periodic removal of naturally regenerated trees will be carried out. HES will be consulted before carrying out any works in the vicinity of scheduled monuments.

Other features

In addition to the SAMs listed above, Tweed Valley Forest Park is home to a wealth of historic assets which collectively are a regional priority in South Region. Management of these assets is as outlined above. Although none of the historic assets of the Tweed Valley Forest Park are suitable for onsite visitor interpretation, several are included in maintained recreation trails, including Pirn Wood SAM, and are highlighted in trail maps and guides.

Landscape

As highlighted in Appendix 1, the forests and open habitats of TVFP, including this LMP, are hugely important in the wider landscape, dominating many of the views seen from local communities and recreational areas. A Landscape Summary for TVFP in included as Appendix VI to the LMP.

Design work has focused on the most sensitive areas where small scale hills enclose and provide a backdrop to Innerleithen and Walkerburn and slopes either side of the valley between these villages.

People

Neighbours and local community

Refer to **Map 13 – Recreation** and **Appendix VII – Recreation Zones,** Public Access information in **Appendix 1,** and **Appendix III – Consultation Record**

Innerleithen and Walkerburn both have a very strong sense of community, with an active interest in their local forests and how they are managed and used. Both communities are well represented by respective community councils. The forests in this LMP are the major landscape feature, providing the backdrop to and views from the villages, and an amenity on their doorsteps. For many local people the forests are important for informal recreation such as dog walking and horse riding, for others it is the abundance of exciting mountain bike trails. Tourism is a vital part of the local economy and many local businesses rely on the various visitors to TVFP.

A series of public scoping meetings were held in the Tweed Valley in August and September 2017, including Walkerburn and Innerleithen, to enable local people to feed into the LMP process, as well as inform how public access and recreation facilities should be managed to accommodate the various wishes and needs of locals and visitors alike. Refer to Appendix III – Consultation Record

Informed by this consultation process, and an understanding of visitor use, the Region has developed Tweed Valley Recreation Zones (officially 'launched September 2020) – see Appendix VII of this LMP.

FLS will continue to collaborate with the local community and user groups to promote formal recreation and informal access in the forest, and to enhance the overall visitor experience. We will build on existing collaborations/partnerships with local groups such as Tweed Valley Trails association to develop and improve standards of trails.

Public access

Refer to **Map 13 – Recreation** and **Appendix VII – Recreation Zones** and Public Access information in **Appendix 1.**

Formal recreation infrastructure will be maintained to a high standard, appropriate to the type of facility. As resources allow, FLS will aim to refresh and improve the existing 7 Stanes mountain bike routes and facilities at Traquair Forest.
Through on-going forest management, we aim to develop to a more diverse forest environment, and provide an attractive backdrop and setting for public access and recreation. Views of the forest from the Southern Upland Way (SUW) will be improved by breaking up 'hard' forest boundaries, and opportunities will be taken to enhance views from SUW and other paths within the forest.

While forest restructuring in being carried out, in particular through clearfelling and restocking areas such as Plora and Caddonbank in Traquair Forest, there will inevitably be disruption to public access. In the Management Plan (Map 5 - design of felling coupes and phasing of felling) we aim to reduce the potential impacts of harvesting. The future Habitats and Species Plan (Map 6) shows that we will replace much of the conifer area on Plora and Caddonbank faces with native broadleaves that will be managed less intensively in the future, some as 'minimum intervention'.

Our Planning, Delivery and Visitor Services Teams will work closely together to minimise disruption by careful timing of forest operations and providing alternative access where at all possible. Visitor Services will liaise closely with Scottish Borders Council Access Team, user groups, tourism businesses and local communities as appropriate.

All trails and paths will be protected as far as possible from damage from forest operations.

Soils

Ground preparation

Appropriate ground preparation will be essential to successfully establish restock crops. The choice of ground cultivation will consider short term benefits from establishment, as well as longer term effects on tree stability, future forest operations and the environment. The least invasive technique to achieve objectives will always be favoured where possible, but the cost and machine availability must also be considered. Cultivation techniques will be considered on a site by site basis, bearing in mind that there are often several different soils within a given site. The following table is a summary of FLS Guidance on ground cultivation.

Soil type	Recommended best practice	Possible alternatives
Brown earths	Scarification or no cultivation, depending on soil nutrient regime (SNR)	
Podzol	Scarification or mulching	Inverted mounding or no cultivation (or hinge mounding in certain circumstances)
Ironpan	Inverted mounding or subsoiling/ripping	
Gley	Inverted mounding or no cultivation depending on SNR	Scarification, mulching, hinge mounding or trench mounding in certain circumstances.

Deep peats

There are no deep peats recorded in the GIS soils layer.

Water

Drinking water
Known water supply points and pipelines are recorded as a layer in our Forester Web GIS and are shown on Map 10 (Private Water Supplies and Public Water Catchments). These will be highlighted during the work planning process and identified on the ground to ensure they are protected during forest operations. Households connected to these supplies will be contacted prior to work commencing. Guidance on protecting private water supplies during forest activities will be followed (available via the Forestry and Water Scotland Initiative: www.forestrywaterscotland.com). Three public water catchments are shown on Map 10, Glenmead Burn and Glenbenna Burn in Elibank and Traquair, and Walker Burn in Caberston. In addition to meeting the UK Forest Standard and Forests and Water Guidelines, the following guidance will be taken into account when planning forestry activities: 1. SW/FCS Guidance on Forestry Activities near Scottish Water Assets (also available via the Forestry and Water Scotland Initiative, as above) 2. SW List of precautions to protect drinking water and SW assets during forestry activities (available via SW Sustainable Land Management website: https://www.scottishwater.co.uk/SLM)
Watercourse condition
Refer to the Hydrology Section in Appendix 1 for details of relevant watercourses. Riparian woodland that acts as a buffer for water courses will be enhanced through further planting and natural regeneration of site suitable native broadleaves (see section on native woodland above). This will help protect water quality as well as aiding sediment removal and erosion control, moderation of shade and water temperature, maintenance of habitat structural diversity and ecological integrity, and enhancement of landscape quality. Where any old drains drain directly into watercourses, the opportunity will be taken, where possible, to intercept these drains during ground preparation work for restocking. All management operations will be carried out in accordance with Forests and Water requirements of the UK Forest Standard
Flooding
Refer to the Hydrology Section in Appendix 1.

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Appendix I: Description of Woodlands

Topography and Landscape	Refer to **Map 2 Key Features** and **Appendix VI Landscape** The forests of this LMP are a dominant feature of Tweed Valley Forest Park (TVFP). TVFP Summary provides the landscape context for the LMP, identifies landscape designations and landscape character and highlights key landscape challenges. Key aspects relating to this LMP area include the following Special Landscape Areas (SLA): SLA1 Tweedsmuir Uplands - the southern half of Traquair Forest is within this SLA, including part of Minch Moor SLA2 Tweed Valley – the rest of Elibank, Traquair, Thornielee and most of Caberston are within this SLA. SLA3 Tweed, Ettrick and Yarrow confluences – the eastern side of Elibank Forest is immediately adjacent to this SLA.
Geology and Soils	Refer to **Map 9 Soils** The underlying geology consists of bed rock comprising mainly wacke sandstone, siltstone and mudstone in variable proportions. Soils are varied with brown earths dominating the stepper lower and middle slopes, and ironpans dominating the higher slopes and plateau. Surface water gleys are found in the valley bottoms, and some smaller areas of peaty gleys higher up. Hill and ridge tops also have skeletal soils, and there are some extensive scree slopes, notably in Caberston.
Climate	Data from Galashiels climate station: Summer average temperature 10.3 °C Winter average temperature 5.8 °C Summer average precipitation 59.5 mm Winter average precipitation 75.2 mm In terms of climatic conditions, the LMP area ranges from warm, moist and sheltered close to the valley bottom to sub-alpine, wet and too exposed for forestry on the top of Minch Moor. Most of the forest is however classified as cool and wet, and moderately or highly exposed. ESC gives accumulated temperature (day degrees above 5 °C) ranging from 1120 - 1640 (sub-alpine – warm) and a moisture deficit range of 60 - 110 (wet - moist). Based on data from the UK climate projections (2009) this area is likely to have warmer drier summers with warmer wetter winters exhibiting a 2-3 °C increase in summer and winter temperatures and 20% reduction of precipitation in the summer and 20-30% increase in winter

	precipitation.
Hydrology	TVFP sits within the Tweed Catchment, part of the Solway-Tweed River Basin District. All watercourses drain into the River Tweed, directly or via main tributaries to the Tweed including Yarrow Water, Ettrick Water and Leithen Water. They all form part of the Tweed Special SSSI and SAC (see below under 'Biodiversity). According to SEPA's Water Environment Hub, the River Tweed in this area is in overall good condition. Yarrow Water (into which some watercourses from Traquair Forest flow) is in moderate condition due to concerns over ecological condition (fish condition) and water levels and flows. However, there are no obvious causes for the former, and no obvious negative impacts from the latter, so no specific actions required. Leithen Water (into which some watercourses from Caberston flow) is in moderate condition due to the presence of North American signal crayfish, and therefore of no significance for the forest. According to the Scottish Border Council's Tweed Local Flood Risk Management Plan (LFRMP), the Eddleston, Peebles, Innerleithen, Selkirk, Stow and Galashiels area is a Potentially Vulnerable Area (PVA 13/04). This area has a risk of river and surface water flooding. There are no specific actions in the LFRMP directly relating to management of FLS land. There are several private water supplies within the LMP area
Windthrow	Refer to **Map 10 – Windiness (DAMS)** Average DAMS ranges from 10 in the most sheltered sites near the valley bottom to 20 on the most exposed summits.
Adjacent land use	<u>Elibank</u> On the north side, some agricultural grazing and private woodlands, to the west and east agricultural grazing land acquired by FLS for woodland creation, and to the south east open hill (heather) used for rough sheep grazing and grouse shooting. <u>Traquair</u> On the north side, Plora Wood SSSI managed by Woodland Trust Scotland (native woodland restoration), to the west agricultural grazing land with some woodland, to the south west former hill grazing now undergoing woodland creation, to the south open hill used for rough sheep grazing, and to the south east conifer forest and some rough sheep grazing. <u>Caberston</u> To the north, a mixture of open hill (heather) and rough agricultural grazing land, to the west agricultural land for livestock grazing and

	Innerleithen Golf Course, to the south agricultural grazing and backing onto Innerleithen and Walkerburn, and to the east agricultural grazing with some woodland. Thornielee To the north and west rough agricultural grazing, to the east improved agricultural grazing.
Public access	Refer to **Map 12 Recreation and Public Access** Forming the largest and central part of Tweed Valley Forest Park TVFP), this LMP area is highly important for public access, recreation and tourism. Mountain biking: formal downhill and cross country mountain bike (MTB) facilities in Traquair Forest are part of the 7 Stanes MTB network in South Scotland. Beyond the formal trails, there are many unofficial MTB trails throughout, especially in Caberston Forest. TVFP also plays host to many mountain biking and other cycling events Walking: informal access is popular throughout, with waymarked trails and a car park in Thornielee Forest. Several long distance routes pass through and connect with forests, including the Southern Upland Way (SUW) through Elibank and Traquair (also part of the Cross Borders Drove Road). The Paths Around Innerleithen and Walkerburn booklet includes several routes through the forest, listed below. The booklet is available locally or via Scottish Borders Council. Route 3 Pirn Wood and Leithen Water Route 5 Innerleithen History Trail Route 8 Kirnielaw, Priesthope and the River Tweed Route 9 Bier Law Circular Route 10 Glenbenna and Plora Route 11 Around Minch Moor and Plora Craig Route 12 Traquair and Damhead Horse riding: while there are no formal waymarked routs in the forest, horse riding is popular, in particular in Elibank where there is less pressure from mountain biking. The British Horse Society (BHS) South of Scotland Trails map includes routes across Minch Moor in Elibank and Traquair, using the SUW/Cross Borders Drove Road, and a route through Caberston, between Innerleithen and Walkerburn.
Historic environment	Refer to **Map 11 Heritage** and **Appendix V Historic Environment Records.**

Biodiversity	**Ancient & Semi Natural Woodland (ASNW)** The Tweed Valley has few remnants of ASNW, but there are several areas bordering with Elibank and Traquair Forests, as shown on Map ? Tweed Central Analysis. Most notable is **Plora Wood SSSI** on the northern boundary of Traquair Forest. Most of this ancient woodland of semi-natural origin is owned and managed by The Woodland Trust, but nearly 3 ha is within the LMP area. The SSSI designation relates to its habitat value as an ancient woodland site with semi-natural characteristics, including the presence of several locally rare woodland specialist ground flora species. According to The Woodland Trust it is one of only five oak woods over 30 acres in the Scottish Borders, and represents 50% of the total area of ancient native woodlands in Tweeddale. In the long term The Woodland Trust aims to restore and secure the ancient woodland habitat and enhance ancient woodland communities by removing threats. The small part of the SSSI on FLS land was felled in the early 1990s and restocked with native broadleaves. **Plantation on Ancient Woodland Sites (PAWS)** There is one small area of approximately 3 ha of PAWS at Caddonbank, in the north west corner of Traquair Forest. This was last thinned in 2013. It was surveyed as part of the 2020 South Region PAWS survey. The overall status as assessed as "threatened", with the following recommendations given: • Conventional thinning of remaining larch to secure veteran tree remnants, improve tree canopy composition and improve conditions for woodland flora; • Fell to recycle non-native natural regeneration, beech in particular. **Open habitats** There are several significant areas of Upland Heathland on the higher ground of the LMP area, notably Minch Moor (Traquair), Middlebar Knowe (Elibank), and Kirnie Law, Priesthope Hill and Cairn Hill (all Caberston). Adjacent to Minch Moor and Middlebar Knowe are areas of poor yield class and/or sparse conifers, mainly Sitka spruce planted in the 1980s. Thornielee has an area of open habitat that is valuable for butterflies, and that has been managed to maintain suitable habitat. **Riparian habitats**

	Much attention has previously been focused on riparian habitat, along the main burns and other watercourses, as well as creation of some ponds. These are vitally important in protecting and enhancing aquatic wildlife, in particular where there is salmon and trout spawning. **Species** The forests are home to a wide variety of species including various raptors, bats, red squirrels, badgers, pine martins and butterflies.
Invasive species	Grey squirrel throughout the Tweed Valley.
Woodland composition	Refer to Map 7 Current Species and Section 3.6 Species diversity and age structure.
Plant health	Many pests and diseases pose a potential threat to tree and other plant health in TVFP, but the following are considered the main threats. TVFP falls within *Phytophthora ramorum* (PR) GB Risk Zone 2 and FLS Zone C (FLS Larch Strategy 2019). PR was confirmed on larch at two sites in Traquair Forest in 2018. The infected trees and all larch in a 250m buffer zone were felled following issue of Special Plant Health Notices (SPHN) by Scottish Forestry. Between 2018 and 2021 several suspect trees have been reported but no further infections confirmed. PR has had a huge impact on larch in the south west of the region and remains a significant threat in the Tweed Valley. *Dendroctonus micans* (great spruce bark beetle) has been confirmed on several mature spruce trees in recent years, and *Rhizophagus grandis*, a host-specific predatory beetle, has been released to control the spread of this pest. However, *D.micans* is being found with greater frequency and continues to spread north and east. *Dothinstroma septosporum* (red band needle blight, referred to as Dothistroma needle blight) has been found on some pine in TVFP, but is not currently a significant issue. Monitoring is on-going with individual sites being monitored every three years. Ash dieback (caused by the fungus *Hymenoscyphus fraxinus,* previously called *Chalara frainea*) has had a huge impact on ash trees across the country, and is evident throughout TVFP.

Appendix II: EIA screening opinion request form

Overleaf if required

Appendix III: Consultation record

Consultee	Date contacted	Date of response	Issues raised	FLS response
6 x TVFP LMP community drop-in sessions held in August and September 2017, in liaison with local community councils. Each event ran from 3 – 7pm, with a variety of FLS staff present. 12th August Peebles Agricultural Show (Nether Horsburgh) 16th August Cardrona Village Hall 29th August Innerleithen Memorial Hall 31st August Peebles Burgh Hall 5th September Walkerburn Public Hall 11th September Caddonfoot Hall (Clovenfords) There were three main objectives to the consultation events: 1. Gather general comments on the forests, how they are managed and what changes might be desirable. 2. Find out where people visit and how they use the forests, to inform visitor zoning in TVFP. 3. Invite people to come forward with ideas for how TVFP could be used for sustainable recreation, and possibly work with FLS to develop their ideas. Questionnaires were distributed locally and available at each event to complete there or return later. Comments were also taken on post-it notes at each event and written down by staff following discussion with members of the public. Comments were taken for all TVFP LMPs at all events, although the events in Innerleithen and Walkerburn were most relevant for this LMP. Many of the public commenting visit forests throughout TVFP, and not just their local forest, so all comments relating to this LMP or TVFP in general are included here. Comments relating specifically to other LMP areas are excluded. Main topics or issues are summarised below				
			Recreation facilities and user conflict	

			Request for more horse-friendly parking; horse riding areas publicised as much as bike areas	Referred to Visitor Services (VS) Team to feed into TVFP Visitor Experience Strategy, and to liaise with local horse riding representatives.
			Request for a multi-user Tweed Valley link trail	Referred to VS to liaise with other organisations who are looking into options for a Tweed trail.
			Locals have created some amazing (MTB) trails and would like standard of MTB trails to be improved	VS maintain official FLS managed trails to a high standard and are working in partnership with Tweed Valley Trails Association (TVTA) to improve standards of some less formal MTB trails. The National Access Forum (NAF) Scotland has produced guidance on Unauthorised Mountain Bike Trails – A guide for land managers and riders.
			Request for walking trails in Elibank and Traquair forests	Informed by this consultation process, and an understanding of visitor use, the Region has developed Tweed Valley Recreation Zones (officially 'launched September 2020) – see Appendix VII of this LMP. While walking is welcomed in all forests, waymarked facilities are not planned in Elibank and Traquair. As detailed in the Public Access section of Appendix 1, there are several informal trails included in The Paths Around Innerleithen and Walkerburn booklet.

			Request for separation of walkers from cyclists	Single track mountain bike trails are already separate from walking trails, but many walking and cycling/mountain biking routes will continue to share sections of forest road. Safe interaction between users is a top priority for FLS, through appropriate infrastructure such as crossing points, clear signage and encouraging good practice by mountain bikers.
			Water issues on paths	Referred to VS to deal with. All recreation infrastructure and facilities are regularly inspected and essential maintenance carried out.
			Request for more maps along trails, with 'you are here'	Referred to Visitor Services (VS) Team to feed into TVFP Visitor Experience Strategy
			Options for parking in Innerleithen instead of/to supplement Traquair car park?	Referred to regional management team to consider when reviewing 7 Staines facilities.
			Request for greater variety of/more official bike trails, trail refreshment, support for hand built trails, increase in natural trails, etc.	VS maintain official FLS managed trails to a high standard and are working in partnership with Tweed Valley Trails Association to improve standards of some less formal MTB trails. Facilities in Traquair Forest are being reviewed, and subject to securing funding it is planned to invest in the 7 Stanes trail network and infrastructure here. In line with the Tweed Valley Recreation Zones, unauthorised

				trails in Traquair, Caberston and west Thornielee will be managed using FLS and NAF guidance. Additionally, in Caberston FLS is working in collaboration with TVTA who have adopted some trails. In Elibank and east Thornielee unauthorised mountain bike trail development will not be permitted.
			Requests for several improvements for horse riding access in TVFP, including Thornielee and Elibank.	Referred to VS who have had subsequent discussion with local horse riding representatives regarding potential improvements.
			Request for more links from long distance paths into the forest	Referred to VS to review, along with horse riding requests.
			Many concerns regarding conflict between user groups, and requests to make the forest safer for walkers in particular.	FLS will promote Tweed Valley Recreation Zones and encourage responsible use by all users. See also above re. separation of walkers and cyclists. In terms of forest management, maintaining visibility on roadsides, trails and crossing points will also help with safe interaction of users.
			Environment	
			Improvements to red squirrel habitat and grey squirrel control	The plan includes areas to be managed as natural reserve (NR), minimum intervention (MI) and conifer long term retention (LTR), all of which will contribute to suitable red squirrel habitat, along with

				an increase in the proportion of Scots pine and Norway spruce. NR and LTR coupes will lead to more mature/semi-mature woodland, with some stands developing 'old growth' characteristics. FLS will continue to support efforts by Saving Scotland's Red Squirrels to reduce grey squirrel numbers in TVFP. Trapping of grey squirrels will be carried out in Upper Tweed Valley Priority Area for Red Squirrel Conservation (PARC), focusing on forest edges around Peebles and Innerleithen that are considered to be hot spots and sources of spread by grey squirrels.
			Can we encourage pine martins, which are becoming more common in the Tweed Valley?	The population appears to be expanding with the forests being managed as they are. Measures to improve habitat for other species such as red squirrels will also improve it for pine martins. Pine martins also appear to be having a positive impact on red squirrels by predating grey squirrels. Red squirrels are more adept at keeping out of reach.
			Forest Planning	
			Would like to see more native broadleaves, which can be productive	Native broadleaf woodland will expand in riparian zones and on the slopes above Plora Wood SSSI. Total proportion of

				native broadleaves is planned to increase from 3% to 7% of LMP area.
			Would like more advance notice of when forest operations are happening, and so when timber traffic is likely to increase.	FLS staff will explore ways of improving information on upcoming forest operations, including use of FLS website and social media.
			Lighten up the forest on Plora Hill with different species.	The felling and restock plan for Plora will create greater structural diversity and expansion of native broadleaves up the lower slope above Plora Wood SSSI. Restocking on the slope above this will include Norway spruce with silver birch to give greater visual diversity, as well increase biodiversity value. Similarly, other conifer restock will include a proportion of birch.
			Consideration of long term mineral depletion of soils from repeated logging, and I'd particularly like to see some consideration of the erosion impact of clear-fell policies on steep slopes.	Long term mineral depletion is an important factor when considering future management of the forests, especially where we are practicing a clearfell and restock system. TVFP forests do have some very steep areas with shallow and skeletal soils, and we will consider carefully the management options for these sites. Choice of ground preparation techniques (or avoiding it altogether) and what to do with harvesting residue will be considered during the work planning process.

Tweed Valley Forest Park (TVFP) LMP Scoping Meeting & Forestry Panel Meeting – 21st June 2018 Indoor presentation and discussion focusing on initial draft TVFP Analysis and Concept, followed by a site visit to Cardrona Forest. The following organisations were represented at the meeting: Walkerburn and District Community Council Innerleithen and District Community Council Forestry Commission Scotland (now Scottish Forestry), South Scotland Conservancy Scottish Borders Council – Natural Heritage, Planning and Implementation Scottish Borders Council – Landscape Architect SEPA SNH (now NatureScot) Historic Environment Scotland Southern Upland Partnership Tweeddale Ramblers Mountain Bike Centre of Scotland As this was a very broad scoping meeting for TVFP LMP there were few specific comments to be noted.				
			Concerns regarding timing of felling on the Plora face, given the extent of mountain bike routes throughout.	Plora face will be felled in gradual phases and there will be consultation with the visitor services team to minimise disruption to mountain bike routes.
			Retain old trees as features in the forest	LMP includes areas of NR and MI where mature and veteran trees will be safeguarded. Several coupes have been identified as LTRs, and future LTRs will be identified so that there are always mature or semi-mature stands of trees in the forest. During the work planning process,

				environment staff will identify individual trees at site level.
			Concern over too much emphasis on mountain biking	Mountain biking is undoubtedly extremely popular in the Tweed Valley and very important for the local economy. However, all visitors should feel welcome in TVFP. By developing Tweed Valley Recreation Zones, FLS will aim to safeguard some forest areas for quieter recreation and public access, where unofficial MTB trails will not be tolerated.
			Interest in expansion of native woodlands, possibly 're-wilding' a few larger areas of broadleaf woodland – these could be close to the valley and not necessarily in remote areas. Connectivity would be important.	The main focus of native broadleaf expansion will be in the riparian zones and a gradual expansion of Plora Wood SSSI, pushing broadleaves up the lower slopes. 'Re-wilding' as such is probably not appropriate due to the concentration of mountain bike and other trails, but it is intended that much of this broadleaf expansion on steeper slopes will be managed in the future as minimum intervention.
			Interest in connectivity between forests and longer distance routes.	Other organisations in the Tweed Valley are actively looking at options to develop a longer distance trail, connecting with communities and other access infrastructure along the way. VS staff will liaise accordingly as plans are developed.
			Would like to see forests contributing to water catchment improvements, in	Riparian woodland that acts as a buffer for water courses will be enhanced through

			particular regarding water quality. Also interested in possible contribution to natural flood management measures.	further planting and natural regeneration of native broadleaves. This will help protect water quality as well as aiding sediment removal and erosion control, moderation of shade and water temperature, maintenance of habitat structural diversity and ecological integrity, and enhancement of landscape quality. All management operations will be carried out in accordance with Forests and Water requirements of the UK Forest Standard. Ground preparation techniques will be carefully chosen to minimise the risk of negative impact on soils and water. FLS will work with SBC and other organisations to look at opportunities for NFM if proposals are brought forward. Other than the measures outlined above for riparian zones, most of this LMP area is unlikely to be suitable for NFM measures.
			Interested in information on use by more deprived communities. Also interested in potential for community projects such as 'You Can Grow' (scope for growing fruit trees?) and Branching Out, and potential CATS (Community Asset Transfer Scheme) opportunities.	Unaware of research specifically in the Tweed Valley, but Forest Research have been carrying out research at a national level, and are best people to contact. With regard to community projects, local staff have supported branching out projects, but are not leading on these.

				Environment staff also lead volunteers on conservation projects in TVFP. Local community groups have engaged with the Region and there have been two successful CATS schemes near Peebles (none relating to this LMP).

Appendix IV: Tolerance table

	Maps Required (Y/N)	Adjustment to felling period *	Adjustment to felling coupe boundaries **	Timing of Restocking	Changes to Restocking species	Changes to road lines	Designed open ground ** ***	Windblow Clearance ****
FC Approval normally not required	N	• Fell date can be moved within 5 year period where separation or other constraints are met.	• Up to 10% of coupe area.	• Up to 3 planting seasons after felling.	• Change within species group e.g. evergreen conifers or broadleaves.		• Increase by up to 5% of coupe area	
Approval by exchange of letters and map	Y	• Advance felling of Phase 2 coupe into Phase 1	• Up to 15% of coupe area	• Between 3 and 5 planting seasons after felling, subject to the wider forest and habitat structure not being significantly compromised.		• Additional felling of trees not agreed in plan. • Departures of > 60m in either direction from centre line of road	• Increase by up to 10% of coupe area • Any reduction in open space of coupe area by planting.	• Up to 5ha
Approval by formal plan amendment may be required	Y	• Felling delayed into second or later 5 year period. • Advance felling (phase 3 or beyond) into current or 2nd 5 year period.	• More than 15% of coupe area.	• More than 5 planting seasons after felling, subject to the wider forest and habitat structure not being significantly compromised.	• Change from specified native species. • Change Between species group.	• As above, depending on sensitivity.	• In excess of 10% of coupe area. • Colonisation of open space agreed as critical.	• More than 5ha.

NOTES:

* Felling sequence must not compromise UKFS, in particular felling coupe adjacency

** *No more than 1ha, without consultation with FCS, where the location is defined as 'sensitive' within the Environmental Impact Assessment (Forestry) 1999 Regulations (EIA)*

*** *Tolerance subject to an overriding maximum 20% open space*

**** *Where windblow occurs FCS should be informed of extent prior to clearance and consulted on where clearance of any standing trees is required*

Table of Working Tolerances Specific to Larch

	Adjustment to felling period	Adjustment to felling coupe boundaries	Timing of restocking	Changes to species	Changes to road lines
FC Approval not normally required	Fell date for all larch can be moved and also directly associated other species	Larch areas can be treated as approved coupes. Other conifers directly associated with larch being felled, may also be removed up to an equivalent of 20% of the area occupied by the larch or 5 ha, whichever is greater	To be undertaken within the overall plan approval period.	Replacement as per the agreed restock plan, but where this is not specified or is larch this may be replaced with either another diverse conifer (not SS) or Broadleaves.	
Approval normally by exchange of letters and map. **In some circumstances Approval by formal plan amendment may be required**		Removal of areas of other species in excess of the limits identified above.	Restocking proposals outwith the plan approval period.	Restocking proposals for other species which do not meet the tolerances identified above.	New road lines or tracks directly necessary to allow the extraction of larch material.

Appendix V: Historic Environment records

Refer to **Map 11**

Designation	HES Ref	Name	Feature Description	Grid Reference	Importance	Area (ha)
Elibank Forest						
Scheduled Monument	SM6163	Elibank Castle[1]	A L-shaped tower house of late 16th century date with outbuildings. To N, E and W are a series of terraces associated with a garden and orchard, and an access path.	NT 3970 3631	National	1.21
Undesignated		Middle Rig	Clearance cairn measuring at least 20m by 50m. Loose stones could be detected for some distance downhill of the main mass. A structure noted at the lower edge of the stony mass is probably a shepherd's shelter.	NT 371 337	Uncategorised	1.0
Undesignated		Glenmead Burn	A building located on the SE corner and a sheepfold at the NE corner of the two conjoined enclosures.	NT 371 346	Regional	0.38
Undesignated		Newstead-Peebles	Route of Roman Road may have followed the N bank of the river Tweed. Its exact course, however, is unknown.	NT 390 360	Uncategorised	100
Undesignated		Tower Knowe	A cairn, measures 40ft in diameter and robbed of stone for dyke-building, and only the low, stony rim survives. Thought to have been damaged or destroyed by forestry activities.	NT 393 361	Uncategorised	1.0
Undesignated		Elibank Castle	A farmstead comprising two buildings and one enclosure.	NT 395 363	Regional	0.05
Undesignated		Elibank Craig	A stone seat with a bronze memorial plaque on it. The plaque reads "His favourite view. This seat is placed here in remembrance eternal as the hills of Alick (Lord Murray of Eliburn)". The plaque bears the letters H.M., along with the date 1923.	NT 402 358	Uncategorised	1.0
Traquair Forest						
Scheduled Monument	SM3026	West Bold[1]	A scheduled enclosure within two much reduced banks, measuring 170ft x 165ft. Later ebclosures have been built inside the earlier enclosure.	NT 3624 3639	National	1.58

Scheduled Monument	SM3157	Plora Craig[1]	A scheduled tower house and associated outbuildings and terraces. The tower is at the NE end of a range of buildings. To the SW lies a kiln.	NT 3609 3630	National	0.45
Undesignated		Plora Burn	Two burnt mounds. One to the E measures 9 x 7m and 1.2m high. The second Burnt mound lies 90m uphill to the W. It measures 4.5m in diameter and 90cm high.	NT 358 362	Uncategorised	1.0
Undesignated		Piper's Knowe	Cairns recorded at Piper's Knowe in 1961. No trace was found in 1962.	NT 350 340	Uncategorised	1.0
Undesignated		Minch Moor	Cists recorded on Minchmoor in 1845.	NT 350 330	Uncategorised	100.0
Undesignated		Camp Shiel	A lead mine, comprising a trail pit and spoil heaps to S and SW.	NT 345 332	Local	0.57
Undesignated		Camp Shiel	A roughly circular retting pond, measuring c4 x 3.5m internally, enclosed by turf banks 1m wide x 0.80m high internally. Water entered by a channel on the E side and left on the N side.	NT 343 329	Uncategorised	1.0
Undesignated		Cheese Well	A well. Two inscribed stones lie beside it. One bears the inscription 'Cheese Well' and the other 'Cheese Well', '1965' and a thistle motif. Tradition asserts that travellers left pieces of food to the 'little people' for safe passage across the moor.	NT 356 335	Regional	0.01
Undesignated		Minch Moor	A drove road.	NT 362 333	National	7.47
Undesignated		Minch Moor	A drove road.	NT 342 337	Local	1.82
Undesignated		Minch Moor	A drove road.	NT 358 324	Local	5.86
Thornielee Forest						
Undesignated		Thornylee Craigs	A field system with clearance cairns and two sheepfolds. One sheepfold attached to wall on NE of the field system. The second larger sheepfold is at the SE corner.	NT 404 371	Local	5.50
Undesignated		Cauld Face	Cultivation terraces visible on aerial photography.	NT 400 367	Uncategorised	1.0
Undesignated		Thornylee Forest	Located to a 100m square is a square-ended stone house-base some 10m by 5m over 0.5m walls.	NT 401 367	Uncategorised	1.0
Undesignated		Thornylee Craigs	Located to a 100m square are footings of two buildings, 10m by 4m and 4m by 3m.	NT 402 367	Uncategorised	1.0
Undesignated		Thornylee Craigs	Located to a 100m square is a stony mound, 6.5m in diameter; probably stone clearance.	NT 403 367	Uncategorised	1.0

Undesignated		Cauld Face	Cultivation terraces and possible settlement.	NT 406 367	Uncategorised	1.0
Undesignated		Cauld Face	Cultivation terraces have a good deal of stone embedded in their fronts, and run parallel to the contours.	NT 406 367	Regional	1.33
Caberston Forest						
Scheduled Monument	SM1491	Pirn Wood	A scheduled fort, of two periods, measures 480' by 205' within 3 lines of wall and ditches. The interior has 24 circular or semicircular house platforms, ranging from 15' to 30' in diameter. At the foot of the slope to NE is a 480' long bank, an outwork	NT 3357 3726	National	2.07
Scheduled Monument	SM2861	The Common (Torykneis)	A scheduled settlement measures 140' by 120' internally within robbed walls. Possible entrance to S. Internally the area is steeply sloping with 3 tiers or levels with a total of 8 or 9 house platforms, roughly 3 platforms to a tier.	NT 3379 3927	National	0.37
Scheduled Monument	SM2758	Cairn Hill	A scheduled cairn measures 45' N-S x 30', and 1'6" high are situated on the summit of Cairn Hill. A modern cairn, 6' in height, has been built upon it.	NT 3650 3866	National	0.21
Scheduled Monument	SM2763	Walkerburn Cairn	A scheduled cairn, measures 24' in diameter and 1' in height. Much of the original material has probably been robbed to build the nearby sheepfold. A modern cairn has been built upon it.	NT 3650 3817	National	0.16
Category B Listed		Kirnielaw	A pump station and/or surge tower, part of a hydro electric scheme to provided power for the Tweedvale mills at Walkerburn.	NT 348 382	Regional	0.01
Undesignated		Innerleithen, Pirn Road	A length of road beside Pirn estate.	NT 334 369	Local	0.36
Undesignated		Pirn Craig	An enclosure aligned E/W is annotated 'Sheepfold' on the OS 1st edition 6-inch map.	NT 342 374	Local	0.04
Undesignated		Purvis Hill	Three lengths of head dyke.	NT 354 378	Local	0.35
Undesignated		Purvis Hill	A settlement measures about 240' x 175' within the remains of a boulder-faced rubble wall up to 3' in height. The annex surrounds the settlement defined by a scarp and a possible ditch in N. 11 house platforms were noted. Badly affected by afforestation.	NT 355 378	Regional	0.44
Undesignated		Purvis Hill	A building aligned N/S lies on the W side of an enclosure.	NT 355 377	Regional	0.06

Undesignated		Rous Dean	A crescent shaped length of wall annotated 'Sheepfold' on the OS 1st edition 6-inch map.	NT 340 387	Local	0.07
Undesignated		Kirnie Law	A concrete water reservoir, part of a hydro electric scheme to provided power for the Tweedvale mills at Walkerburn.	NT 348 386	Local	0.36
Undesignated		Howyards	A head-dyke incorporating a circular sheepfold at the N end.	NT 353 384	Local	0.25
Undesignated		Old Caberston	Possible quarry.	NT 367 377	Local	0.14
Undesignated		Harpershiels Burn	A sheepfold with four compartments. Three compartments lie to the SE forming a rectangle, which may suggest a building.	NT 341 405	Local	0.06
Undesignated		Red Scar	An L-shaped sheep shelter.	NT 342 407	Local	0.01
Undesignated		The Common Forest	A crescent shaped length of wall annotated on the OS 1st edition 6-inch map as an 'Old sheepfold'.	NT 345 407	Local	0.01
Undesignated		The Common Forest	A crescent shaped length of wall annotated 'Sheep shelter' on the OS 1st edition 6-inch map.	NT 345 405	Local	0.02

Notes:

1. The sites are outside FLS land but close enough to be considered in relation to forest management.

Appendix VI: Landscape

Refer to separate document

Appendix VII: Tweed Valley Visitor Zones

Refer to separate document