## SW Fife Forests Land Management Plan

2021 - 2031

# **Appendices**

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## **Appendix I: Supporting Information**

## 1.0 The existing forest and land

### 1.1 History of the land holding

The South West Fife Forests are comprised of several forest blocks which themselves are often comprised of several smaller woodlands acquired by what is now Forestry and Land Scotland. Beginning in 1929 with the purchase of Balgownie and Bogside Woods, the majority of what is now Devilla Forest was purchased in 1952. Gartarry was purchased in 1956 and more recently the Tulliallan extension to Devilla and East Grange in 2006 followed by Cadgerford and Muirside in 2009 & 2010 respectively.

There is a long history of woodland management throughout Devilla with parts of the forest shown on the Roy maps of 1750. The forest would traditionally have been managed as private multi-purpose woodland with remnants of policy planting near Tulliallan Castle (now the police training college) and past management at Balgownie by the monks in Culross. Much of the area had been managed for sporting return, with the Culross Moor area around Bordie lochan being managed for grouse shoots and both Sika and Fallow deer introduced into the forest for stalking.

More recently Devilla has been managed by Alternative to Clearfell methods creating minicoupes of restocked Scots pine however with the intervening spread of diseases such as Dothistroma Needle Blight (DNB) affecting these crops FLS has moved toward alternative conifers such as Norway spruce, Macedonian pine, Douglas fir & Western Red Cedar. This system is creating a chequerboard of small crop areas which will be a challenge to manage at a practical scale going forward.

Cadgerford, Muirside & East Grange were planted in 2013, 2014 & 2015 respectively to yield both productive conifer and productive broadleaves

This Land Management Plan will replace the following 3 previously approved Forest Design Plans

- 1. Devilla FDP (SF File Ref: 032/09/01) which has extended approval until 31<sup>st</sup> December 2020.
- 2. Cadgerford & Muirside FDP (SF File Ref: 032/11/02) which has extended approval until 19<sup>th</sup> March 2027.
- 3. East Grange FDP (SF File Ref: 032/08/19) which has extended approval until 19<sup>th</sup> March 2027.



## 2.0 Analysis of previous plan

A previously stated the proposed new plan area was covered by 3 previous plans; Devilla (SF File Ref: 032/09/01), East Grange (SF File Ref: 032/08/19) and Cadgerford & Muirside (SF File Ref: 032/11/02) The general objective Devilla's plan was to maintain conifer productivity primarily through Alternative to Clearfell methods with East Grange and Cadgerford & Muirside woodland creation plans.

Further detail and progress on the aims of the previous plans are provided below.

## 2.1 Aims of previous plans and achievements

Table 1 – Progress on previous LMP objectives

Objective	Proposed management actions	Progress to date  1 - Little/No progress  2 - Some progress  3 - Progress as per LMP
Devilla (inc Balgownie & Gartarry)		
Maintain conifer productivity through sound silvicultural practice including Low Impact Silvicultural Systems (LISS) and site specific species selection.	<ul> <li>Over the 10-year period of this Plan, one or two phases of mini clearfell, with locations dependant on thinning interventions and results from monitoring. Options to</li> <li>create new gaps in the crop,</li> <li>expand existing gaps</li> <li>or a combination of the two.</li> <li>New gaps could be created with a more organic coupe shape.</li> </ul>	3 – Whilst this has progressed as per the LMP the resultant mini coupes present a future challenge to manage for thinnings etc.
Manage forest to improve habitat for LBAP species prioritising for Red Squirrel	Areas of fen and basin mire have been identified as Priority Habitats, under the Local Biodiversity Action Plan (LBAP). Many sites are obvious due to the failure of the tree crops, usually in small hollows. These will continue to be cleared and kept free of regeneration. Other sites, where the ground is slightly drier, have filled with natural regeneration mainly of Birch and Willow. These form a Wet	3



Objective	Proposed management actions	Progress to date
		1 - Little/No progress
		2 – Some progress
		3 – Progress as per LMP
	Woodland Priority Habitat, which	
	adds to the value of Devilla Forest.	
	Retaining SP/NS & larch is a key	
	priority, so the mainly conifer	
	woodland mix will continue. There	
	are also resident Grey squirrels, but	
	the two species appear to be	
	successfully co-existing at present.	
	Surveys are done before felling to	
	ensure dreys are protected, and work	
	is diverted during the breeding	
	season to avoid disturbance. Pine	
	marten are also present in Devilla and	
	some recent work has suggested that	
	this may be beneficial in preferential	
	control of Grey squirrels, although	
	there is at present no proof of this.	
	Population monitoring will continue	
	and be used to inform decisions on	
	future habitat enhancement.	
	Lowland heath there will be some	
	restoration work. Areas of young	
	conifer regeneration will be removed	
	by hand. More mature Scots pine will	
	be left as open grown pine which also	
	encourages development of	
	heathland. The area of lowland heath	
	will be increased as a temporary	
	'rolling' habitat as part of the regular	
	thinning and mini-coupe creation and	
	there will be a component along	
	roadsides, likely to remain open to	
	assist in keeping roads drier.	
Protect and expand forest habitat	important biodiversity value	3
networks and priority habitats	throughout the forest, will be linked	
	more effectively into the Forest	
	Habitat Network (FHN).	



Objective	Proposed management actions	Progress to date  1 - Little/No progress  2 - Some progress
	Watercourses, small wetlands, the lochs and areas of native woodland and large veteran trees will be joined to ease movement by animals and plants. The watercourses will form the main linkage, with broadleaf planting and natural regeneration predominant, while areas of open space will be left in matrix, targeted where these will be of particular importance to wildlife. A proportion of standing and fallen deadwood left at harvesting will be included in these areas, where it is safe to do so. Large-seeded broadleaves will not be planted, to minimise the attraction for Grey squirrels.	3 – Progress as per LMP
Restore areas of Planted Ancient Woodland Sites (PAWS)	<ul> <li>eastern part of Balgownie is a Planted Ancient Woodland Site (PAWS). The conifers in the approximate area of coupe 52 in the previous Plan will be felled. Natural regeneration is likely in here, but conifers will be removed once they have reached a height for successful felling (usually c2m in height) and enrichment by planting will increase the range of native species growing on the site. It may be necessary in future to thin some of the more vigorous birch regeneration to allow growth of Oak in particular. The remainder of Balgownie will be heavily thinned and is likely to be gradually transformed into broadleaf woodland.</li> </ul>	
Control Rhododendron	Rhododendron control will continue through the period of the Plan,	1



Objective	Proposed management actions  improving habitat and potential for natural regeneration of tree species.	Progress to date  1 - Little/No progress  2 - Some progress  3 - Progress as per LMP
	We hope to work with neighbouring landowners to prevent it spreading back into the forest from their land, with one option being to replace the invasive <i>R. ponticum</i> with ornamental varieties which do not seed readily.	
Engage community	•	3
Improve access	<ul> <li>At both Tulliallan and Balgownie vegetation will be scraped off and material added to strengthen the roads. Additional turning points will be necessary, which require small areas of felling, but other widening can be done as part of the thinning operations.</li> <li>FLS will continue to seek opportunities to add to the recreational facilities of the forest through partnership schemes such as the Red Squirrel Trail and maintain and enhance existing path networks.</li> </ul>	3
Improve facilities	See last	3
Encourage partnerships and volunteering	See last	3
Stage events	See last	3
Engage local schools (Forest School)	FLS staff will offer educational support visits for local schools and youth groups	3
Maintain an attractive woodland	FLS are committed to improving the community and recreational value of the forest and will actively involve FCS resources in doing so.	3
Reduce anti-social behaviour	<ul> <li>Through increased presence and working in partnership with</li> </ul>	3



Objective	Proposed management actions	Progress to date  1 - Little/No progress  2 - Some progress  3 - Progress as per LMP
	communities and local police, FLS staff will contribute to the reduction of vandalism, litter and anti-social behaviour.	
Protect historical features and maintain access to both scheduled and unscheduled monuments	<ul> <li>Trees will not be planted within 20m of archaeological remains and any regeneration will be managed to prevent damage</li> </ul>	3
Protect and enhance internal views	The appearance of Devilla will continue to change over the period of this Plan, but it will be small scale, with some areas opened up and others becoming more dense as the young trees grow. Rhododendron removal has already transformed a large area, allowing the ground vegetation to start to re-establish. Thinning has allowed development of an understorey of Birch in places	2
Protect designed landscape	Places identified as of value for historic interest will show more clearly as the rest of the forest matrix diversifies. Their special features will mark them out and the aim is to make more of them accessible from recreation routes.	3
East Grange		
Maximise the potential for carbon sequestration by creating a woodland based on sound silvicultural decisions	•	3
Establish a demonstration site to promote best practice in the growing of Short Rotation Coppice and Short Rotation Forestry	•	1
Create a productive woodland capable of producing quality	•	2



Objective	Proposed management actions	Progress to date  1 - Little/No progress  2 - Some progress  3 - Progress as per LMP
softwood and hardwood timber		
Provide an educational resource for local communities and the farming and forestry sectors	•	3
Enhance recreational opportunities for local people through the provision of public access	•	3
Increase biodiversity value through careful use of open space and tree species choice	•	3
Protect water quality through careful planning and sensitive planting proposals	•	3
Cadgerford & Muirside		
Plant conifers for timber production where site conditions are suitable	Plant approx. 88 Ha of conifer	3
Include productive broadleaves where site conditions allow	•	2
Suitable pest management to ensure success of planting and regeneration	<ul> <li>Deer will be controlled by culling to minimise damage.</li> <li>Deer glades will remain open from planting to assist with cull</li> <li>Deer fencing will be advocated in areas of productive broadleaves to allow effective control. Any deer fencing erected will take account of public access.</li> <li>Individual tree shelters may be considered where required, but will not be used on a large scale in highly visible areas.</li> </ul>	3
Provide an educational backdrop for community/schools involvement	FLS will actively engage the local community to encourage use of the	3



Objective	Proposed management actions	Progress to date  1 - Little/No progress  2 - Some progress  3 - Progress as per LMP
	forest. Ranger staff will look for opportunities to build links with local community groups and schools. They will also aim to develop Forest Schools with local community.	
Maintain clean access points and develop improved access facilities for foot, horse and cycle	Aspirational routes have been identified and these will be left unplanted.	3
	Existing routes will be protected from damage by any planting preparation, and be made easier to follow with low-key strimming of vegetation.	
	Public usage will be monitored by FD     Ranger staff and the need for     surfaced routes will be assessed as     part of site Recreation & Access plan	
Develop contacts with local communities	<ul> <li>A community orchard has been planted in partnership with local land owner J Cannon and planted with Saline primary school.</li> <li>A further area will be left out of planting contract to be planted with</li> </ul>	3
Preserve the most important views within the site and enhance where possible	<ul> <li>Planting distance from aspirational routes will vary. Some key long distance and internal views will be kept open. Some places will intentionally be planted close up to give a woodland feel and create a range of perspectives.</li> </ul>	3
Protect known historic features	<ul> <li>West Kitchen Green Farm site to be protected by 5m buffer.</li> <li>Kinnedar Mains enclosed settlement</li> </ul>	3



Objective	Proposed management actions	Progress to date  1 - Little/No progress  2 - Some progress  3 - Progress as per LMP
Develop options to enhance other habitats, including expansion of native woodland	<ul> <li>Will be protected by a 30m buffer.</li> <li>Lockshaw Moss Site of Special Scientific Interest (SSSI) will be managed in accordance with the SNH approved SSSI management plan, and planting will take account of the SSSI</li> <li>Although Dun Moss is not a designated SSSI it will be managed similarly to the Lockshaw Moss SSSI.</li> <li>Shawmuir wood should be managed to preserve a matrix of priority open habitat and native woodland habitat by introducing an extensive cattle grazing regime to the whole of the former Shaw Muir wood, including all the areas of priority open habitat. This will allow a mosaic of woodland and open habitat to develop further.</li> </ul>	1

## 2.2 How previous plan relates to today's objectives

This new revision of the plan largely follows on from the objectives of the previous plan to achieve a multi-purpose forest albeit utilising different silvicultural methods to achieve the same goal.(see **Appendix II**).

## 3.0 Background information

## 3.1 Physical site factors

#### 3.1.1 Soils & landform

The sites sit within a gently undulating landscape of largely glacial till overlying limestone coal formations, resulting in a matrix of fertile surface water gleys and brown earths with some



areas of peaty surface water gley and juncus bog. Typical and ironpan podzols are also prevalent in Devilla Forest. Elevation across the site rises from  $\sim$ 20 m -  $\sim$ 125 m above sea level (asl) (see Map 2 – Soils).

#### 3.1.2 Current climate & exposure

The climate across the sites is 'Warm' and 'Moist' (see Map 3 – Climate).

Detailed Aspect Method Scoring (DAMS) is a measure of windiness of a site using the angle to the horizon in the eight compass points, weighted towards the prevailing wind direction. Scores range from 0-24: The higher the score the greater the exposure, with scores below 13 regarded as sheltered and above 22 as too high for commercial forestry. DAMS on the site range from sheltered to moderately exposed

The predominant climate and exposure across the forest allow for good conifer tree growth with few limitations on silvicultural options. Cumulatively the soils, climate and exposure allow for a relatively wide range of species suitable for continued productive conifer crops.

#### 3.1.3 Future climate

Climate data projections for 2050 and 2080 have been used to predict the anticipated future climate, which is expected to have warmer and drier summers, but with an increase in the frequency and severity of winter storms. Although this suggests that the range of suitable species may expand to accommodate more demanding species, and that the growing season may extend, it may also indicate an increased risk of drought which may, in future rotations, limit the site suitability of species which are currently suitable.

#### 3.1.4 Hydrology

#### 3.1.4.1 Flood Risk

The Bluther Burn runs through Muirside, skirting Cadgerford before bisecting Balgownie and East Grange and flowing into the Forth Estuary at High Valleyfield which skirts two of Scottish Environmental Protection Agency (SEPA)'s Target Flood Areas. The burn is identified as at high risk of flooding on SEPA's Flood Risk Map. The Burn is considered in poor condition due to its poor access for fish migration. SEPA's Flood Risk Map also identify areas along Keir Burn in Devilla, around East Grange Farm and Cadgerford as at high risk of surface water flooding. A swathe of Devilla generally following the Keir Burn sits within a planned Flood Protection Scheme Study led by Fife Council to assess whether flood storage, flood defences, sediment management and natural flood management could reduce flood risk to Culross and Kincardine.

#### 3.1.4.2 Forestry Activity

Given that the Kincardine Drainage Area has approx. 68% woodland cover with FLS managing the majority of this, the impact of forestry felling activity and short term reduction in canopy cover (potentially leading to less evaporation of the water) has the potential to have a significant impact on the peak flow.



#### 3.1.4.3 Water Condition

SEPA's Water Environment Hub indicates that the Bluther Burn is in overall a poor condition.

## 3.2 The existing forest

### 3.2.1 Species, age structure & yield class

Table 2 below shows the species make-up of the SW Fife Forests with Figure 1 further illustrating the species composition. Both the table and figure show that the forest is predominantly conifer (~73%) of which Scots pine constitutes ~64% (see Map 4 - Existing Crop).

Table 2 – Current Forest Species by Area

Species	Area (Ha)
Scots pine	457.6
Broadleaves	265.5
Sitka spruce	83.9
Norway spruce	67.6
Larch	58.5
Other conifer	27.7
Douglas fir	15.9
Macedonian pine	3.9





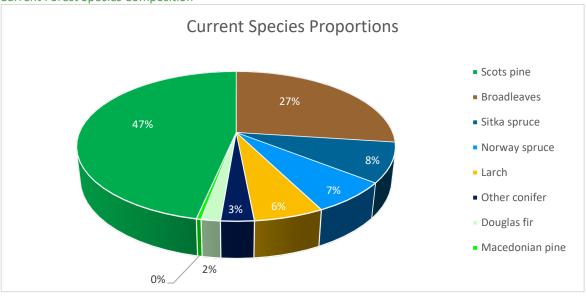
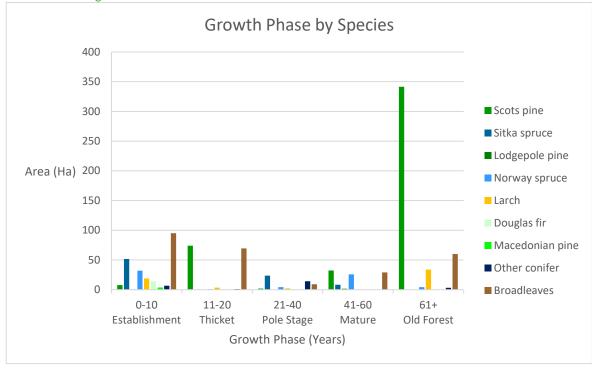


Figure 2 below illustrates that the general picture across the forests is much of the forest is predominantly made up of old forest Scots pine with increasing diversity of species amongst newly establishing crops. This is no surprise given the nature of the recent small scale LISS felling areas restocked with various alternative conifer species.

Figure 2 – Current Forest Age Structure





Yield classes for conifer reach 24 across however the majority of the crop being Scots pine averages around YC 8- YC 10. For the broadleaves Yield class reaches 16 but is generally around 4.

Table 3 - Area by species

Species	Cur	rent	Yea	r 10	Year	20
	Area (ha)	%	Area (ha)	%	Area (ha)	%
Scots pine	457.5	35	407.3	31	363.4	28
Sitka spruce	83.8	6	72.5	6	74.1	6
Norway spruce	67.5	5	68.4	5	61.7	5
Larch	58.5	4	43.9	3	33.8	3
Other conifer	28.3	2	57.8	4	82.9	6
Douglas fir	15.9	1	23.4	2	30.3	2
Native Broadleaves*	190.3	15	184.0	14	186.9	14
Other Broadleaves^	78.5	6	89.6	7	102.6	8
Open space / Agricultural / Open water / Felled awaiting restock	328.8	25	362.5	28	373.7	29
Total	1309.3		1309.3		1309.3	

<sup>\*</sup> Native broadleaf area does not include Mixed broadleaves which are mostly also native species

Table 4 - Area by age

Age class	Current	Year 10	Year 20
(years)	Area (ha)	Area (ha)	Area (ha)
0-10	231.5	107.2	101.3
11-20	149.4	208.4	107.2
21-40	56.6	156.9	327.0
41-60	97.4	45.5	21.9
61+	445.5	428.8	378.3
Total	980.5	946.8	935.6

#### 3.2.3 Operational access

The forests have a road network totalling approx. 38 km, allowing economic operational access (i.e. 500 m or less) for most of the sites although the northern part of East Grange, Shires Mill

<sup>^</sup> Other broadleaves include future areas where the suggested restock species is Mixed broadleaves to provide flexibility which however will very likely be native species when planted.



and all of Muirside fall out with this which will need consideration for future thinning operations.

#### 3.2.4 Low Impact Silviculture Systems (LISS) potential

Much of the mature Scots pine crop at Devilla Forest and Gartarry have been previously thinned although historic thinning records are scant and thinning interventions sporadic resulting in much of the remaining crop being close to final spacing with underdeveloped crowns and reduced dbh. This has led to an understory of prolific birch natural regeneration, normally a welcome and useful component to improve the seed bed for future natural regeneration, but given the incidence of Dothistroma Needle Blight (DNB) in the pine we are not considering encouraging pine natural regeneration to succeed the current crop as a viable method of replacing the existing crop. The relatively sheltered nature of the sites and predominantly mineral soils suggest all the sites are suitable for management by ATC methods in practice although this may need to be postponed until next rotation in some areas.

#### 3.2.5 Pathogens

#### 3.2.5.1 Dothistroma Needle Blight (DNB)

DNB (also known as Red Band Needle Blight because of the colourful symptoms it shows on pine) causes premature needle defoliation, resulting in loss of yield and, in severe cases, tree mortality. DNB is prevalent within Devilla Forest (see Appendix VII) and therefore the previous plan's proposal to restock using Scots pine has more recently shifted toward using other site suited conifer species.

#### 3.2.5.2 Phytophthora ramorum (P. ramorum)

*P. ramorum* is a fungus-like pathogen of plants that is causing extensive damage and mortality to trees and other plants in parts of the United Kingdom. Larch in particular is extremely vulnerable, and high infection and mortality levels are currently causing significant issues in South Region. Several isolated instances of *P. ramorum* have been detected within Central Region forest blocks. The South West Fife Forests fall within Zone E (formerly Zone 3), the SF Less Vulnerable Area, where current research suggests is less climatically suited for P. ramorum infection. Although larch only makes up 6% of the woodland cover it is relatively ubiquitous throughout Devilla and is planted in mixture with other conifer and therefore any infection resulting in a Statutory Plant Health Notice to remove all larch within the affected stand as well as a 250m buffer surrounding the affected stand could result in significant areas of woodland being felled.

### 3.3 Landscape & Land use

#### 3.3.1 Landscape character



The sites sit predominantly within the - Lowland Hills and Valleys Landscape Character Type but a small area of Gartarry also sits within Lowland Valley Fringes Landscape Character Type both described in NatureScot's Landscape Character Assessment of 2019.

Key Characteristics of the Lowland Hills and Valleys relevant to the sites are:



Table 5 – Landscape character assessment

Landscape Type	185 LOWLAND HILLS AND VALLEYS			
Key characteristics and features	Variety and subtlety of landform.			
	Generally dominated by open, regular farmland patterns of medium scale fields of arable and grasslands.			
	Variable pattern of post and wire fences and mostly tall hedges with hedgerow trees.			
	Extensive areas of forestry, shelter planting, roadside planting and policies linked to large estates.			
	Regular, often linear, pattern of the distribution of steadings and larger settlements and towns, all of which are			
	generally well related to the landscape.			
	Towns in valleys enclosed by the landform of low hills which form a rural backdrop.			
	Network of roads often well related to landform.			
	Dominant linear and point features of forests and tree groups, individual trees or local buildings.			
	• A generally tended, safe, quiet, balanced and calm landscape, but also a busy, random, disturbed and noisy one in the			
	more urban, industrialised areas.			
	Variety of interrelated middle and long distance views of, from and across the low hills.			
Summary of relevant key characteristics	SW Fife forests sit within a medium scale landscape. The rolling landscape has a strong geometric pattern of regular			
	fields and woodland. Woodlands feature throughout this landscape character type ranging in size, scale and type from			
	shelterbelts, small woodland to extensive areas of forestry.			
How the key characteristics will be	Respect the historic land use pattern within the Lowland Hills and Valleys landscape character type. It is appropriate for			
maintained/enhanced	woodland boundaries, shape and scale to reflect the pattern of existing fields and woodlands across the local area.			



#### 3.3.3 Visibility

Local topography determines that the forests are generally only partially viewed at the small to medium scale from various low key rural vantage points. Views from transport corridors are generally fleeting other than that of a corridor of Devilla forests that runs along the A985.

#### 3.3.4 Neighbouring land use

The surrounding land-use predominantly consists of a matrix of agricultural land and other private woodland. There are also several small rural properties and farmhouses in the vicinity. The larger settlements of Kincardine, Blairhall & Salen are also situated close by.

## 3.4 Biodiversity & Environment

#### 3.4.1 Priority Habitat & Species

Priority Habitat & Species are protected under the UK Biodiversity Action Plan, and FLS policy is to protect, enhance and expand these habitats where appropriate. There are a broad range of habitat and species types within the plan area some of which are listed in the table below.

Table 6 – SW Fife Forests Priority Habitat & Species

Category	Associated Species & Actions in Plan Area
Lowland Raised Bog	Green hair streak, Cranberry, large heath
Native Woodland	Lowland mixed deciduous Woodland, wet woodland, Upland birchwoods, Veteran trees, pollinator habitat: heath and willows in wet woodland. The wild flowers found here include Bugle, Bluebell, Nettle, Lesser celandine, Wood sorrel, Honeysuckle and Foxglove. Some areas of Scots pine plantation could be classified as W18 Pine wood type habitat but they are not semi-natural. Management of deer to prevent overgrazing.
Lowland Heathland	Common lizards, Ling heather, Blaeberry, Purple moor grass, Tormentil and Cross-leaved heath.
Ponds & Lowland fens	10 species of dragonfly and damselfly, (collectively called Odonata), have been recorded at Devilla forest. These include Aeshna juncea, Coenigrion puella, Cordulegaster boltnoii, Enallagma cyathigerum, Ischnura elegans, Lestes sponsa,



Category	Associated Species & Actions in Plan Area		
	Libellula quadrimaculata, Pyrrhosoma		
	nymphula, Sympetrum danae & Sympetrum		
	striolatum. This number of Odonata qualifies		
	as an outstanding assemblage on the Scottish		
	mainland and the colony of Azure damselflies		
	at Keir dam is one of the only colonies to be		
	found in Fife.		
	Common Frogs, Common Toads and Palmate		
	newts.		
Priority Woodland Species	Red squirrel, aspen, bluebell, brown-long		
	eared bats and various moths		

#### 3.4.1.1 Sites of Special Scientific Interest (SSSI)

Muirside/East Grange - Lockshaw Mosses SSSI is managed under an agreed management plan with NatureScot (formerly Scottish Natural Heritage). The Bog restoration is complete with conservation grazing of the bog plus removal of invasive non-native rhododendron and native woodland management a continued priority.

#### 3.4.1.2 Local Nature Conservation Sites

Several areas within the LMP area have local designations assigned to them, these are listed below:

- Devilla Moor Loch; Devilla Forest Mires
- Cadgerford Dun Moss
- East Grange Blairhall Bing
- Shires Mill Valleyfield Wood

#### 3.4.2 Ancient Woodland

The LMP area has multiple examples of Ancient Semi-natural Woodlands (ASNW); Long Established Plantations (LEPO) and Planted Ancient Wood Sites (PAWS) listed below

#### Devilla

- Preybrae Wood (LEPO);
- Dicksons/Peathill Wood (LEPO);
- Keir Plantation (LEPO);
- Tulliallan Wood (LEPO);



- Castle Hill (LEPO)
- **Gartarry** (LEPO)
- Balgownie (LEPO) & (ASNW) PAWS Management
- East Grange/Muirside (ASNW) & (LEPO at Shires Mill)
- Muirside
  - Big/Maryfolds Wood (LEPO);
  - Maggie McKinlays Wood (LEPO);
- Cadgerford Dunmoss (ASNW) & (LEPO)

#### 3.4.3 Other notable habitat and species

A variety of important species have been observed across the various sites and recorded in our Conservation layer with various sites used by some also recorded. Examples of significant habitat and species are listed in Table 7 below.

Table 7 – SW Fife Forests other notable habitat & species

Habitat	Species
LEPO, semi natural woodland	The development of larger trees for denning sites
	and to create areas of contiguous canopy will
	benefit pine marten and red squirrel
	<ul> <li>Wetlands and bogs are maintained in this plan:</li> </ul>
	Lockshaw SSSI, lochans and riparian and bog
	woodlands and adjacent lowland fens.
	Bats such as brown long-eared and moths such as
	the saxon and green-haired streak will benefit from
	the continued woodland and wetland
	management.
	<ul> <li>Maintain plants benefitting pollinators such as</li> </ul>
	heather and willow trees.
	Management of deer to prevent overgrazing of the
	native woodland flora and trees will continue.

#### 3.4.4 Invasive Non Native Species (INNS)

Previously work has been done to remove invasive species at the following locales with some rhododendron work still ongoing:

- Devilla Rhododendron, Himalayan balsam
- Muirside Rhododendron (Lockshaw Moss)
- Shires Mill Japanese knotweed



#### 3.4.5 Wildlife (Deer Management)

The woodlands have healthy populations of Roe & Sika deer which are kept at sustainable levels by the removing around 135 Roe deer and 15 Sika deer each year using FLS wildlife rangers and contactors.

### 3.5 Heritage

FLS maintains extensive archaeological records for Scotland's forests and land within our heritage database. Important historic environment features are surveyed, recorded, mapped and monitored by Central Region to ensure and demonstrate Forestry and Land Scotland compliance with the UK Forestry Standard. This ensures that undiscovered historic environment features are mapped and recorded prior to forestry management operations and ensures the continued comprehensive protection of the known archaeological resource. In the case of this plan area, whilst not identifying what each feature is, Map 5 - Key Features

Opportunities and Constraints Map shows the various heritage feature locations within the plan area.

#### 3.5.1 Scheduled monuments

The plan area contains 3 scheduled monuments:

- Muirside
  - 1. **Kinnedar Mains** Scheduled Monument (an enclosed settlement of prehistoric date, visible as a cropmark on oblique aerial photographs)
- Devilla
  - 2. **Keir Wood Fort** Scheduled Monument (the remains of a fort in use probably sometime between the Late Bronze Age and the medieval period (between about 1200 BC and 1100 AD).
  - 3. **Castle Hill enclosure** Scheduled Monument (a well-preserved substantial oval enclosure of probable prehistoric date)

#### 3.5.2 Non-Scheduled Features

There are various features within the plan area which are unscheduled and generally already afforested such as banks, dykes, standing stones, wells etc.

#### 3.5.3 Designed Landscape

Transecting the plan area are 2 locally important Gardens and Designed Landscapes.

- 1. Tulliallan borders the south west of Devilla Forest
- 2. Valleyfield borders Shires Mill



#### **Tulliallan**

The reasons for inclusion are mainly for architectural, artistic and historic interest with its nature conservation and scenic value less significant. Full details can be viewed through Historic Environment Scotland's Portal <a href="http://portal.historicenvironment.scot/designation/GDL00379">http://portal.historicenvironment.scot/designation/GDL00379</a>
Valleyfield

The reasons for inclusion are mainly for artistic and historic interest although its value for nature conservation and scenic value is also significant. Full details can be viewed through Historic Environment Scotland's Portal -

http://portal.historicenvironment.scot/designation/GDL00381

The table below assesses the existing contribution the woodlands have on each Designed Landscape and what impact our proposals might have on these.

Table 8 - Assessment of potential impact on the designed landscapes of SW Fife Forests

Key Characteristic considered	Existing Contribution	Proposal/Concept How the special quality is affected Maintained and how?
Tulliallan		
Devilla Forest (south west) considered part of wider designed landscape with most of the original woodland felled during WW1.	The original planting boundary interface between Devilla Forest and Tulliallan originally comprising Scots pine, larch, beech and oak has long since gone with relatively recent p1960's Norway spruce planting now present.	Interface at Tulliallan Wood, change in management approach proposed. Temporary move from ATC management to patch clearfell-restock, enabling FLS to more effectively manage the next rotation by CCF/LISS. This will have minimal impact on the wider designed landscape as only ~ 2 Ha of Devilla within 90 ha designed landscape. The area will be screened by remaining trees and restocked with similar species soon after. No significant change proposed.
Valleyfield		
A recently planted mixed broadleaf woodland (Shires Mill) considered part of wider designed landscape.	The intention for the planting in this area was to enhance the existing designed landscape through sensitive planting proposals, expanding the existing 'policy woodland'.	There may be initial first thinnings within this area toward the end of the plan period improving the aesthetic of the woodland. No significant change proposed.

#### Conclusion:

• There will be no significant changes to wider historic/designed landscape features within the lifetime of the LMP.



### 3.6 Social factors

There are no large communities in close proximity to these sites however Devilla in particular is heavily used for recreation. Devilla Forest is a strategic green network asset because it contains 2 Local Nature Conservation Sites with a variety of habitats and extensive network of core paths, rights of way and National Cycle Routes. There is a community orchard in the NE corner of Muirside near Kinnedar Mains scheduled monument with apples, pears and plums being grown by the local community of the neighbouring village of Saline.

#### 3.6.1 Recreation

Several Rights of Way and Core Paths run through the sites, and there is a formal parking area at A985 entrance to Devilla Forest although no other formal parking elsewhere. Devilla Forest is used extensively by various users such as walkers, cyclists and horse riders using both the forest roads and informal paths. An archery group regularly used the wood at Gartarry.



### 3.7 Statutory requirements and key external policies

In addition to those already referenced within the main text the following key policy or guidance documents which have influenced this plan are listed here:

- UK Woodland Assurance Standard 4, 2018
- Central Scotland Green Network Vision
- Fife Forestry and Woodland Strategy 2013-2018
- Fife Local Development Plan (LDP) 2018
- NatureScot Landscape Character Assessments Type 185 Lowland Hills and Valleys & Type 154 Lowland Valley Fringes
- East Grange Archaeological Survey 2008 Rebecca Shaw Archaeological Services
- Dean Plantation & Balgownie Wood Archaeological Survey 2007 CFA Archaeology Ltd.
- Cadgerford Archaeological Survey 2010 Rathmell Archaeology
- Muirside Archaeological Survey 2011 Rathmell Archaeology
- The Vincent Wildlife Trust Managing forest and woodlands for pine martens
- SEPA Flood Risk Management Maps
- SEPA Water Environment Hub
- Scottish Forestry Bulletin 62 Silviculture of Broadleaved Woodland
- Scottish Forestry Practice Guide 8 The management of semi-natural wet woodlands
- Scottish Forestry Practice Guide 14 Restoration of Native Woodland on Ancient Woodland Sites
- Scottish Forestry Practice Guide 21 Choosing stand management methods for restoring planted ancient woodland sites
- Scottish Forestry Guidance Note 31: Forest operations and wildlife protection
- Scottish Forestry Guidance Note 32: Forest operations and birds in Scottish forests
- Scottish Forestry Guidance Note 34: Forest operations and European protected species in
- Scottish forests
- Scottish Forestry Information Note 40 Transforming Even-aged Conifer Stands to Continuous Cover Management
- Natural Reserves Guidance for their selection and management on the NFE in Scotland
- Minimum Intervention Areas Guidance for their selection and management on the NFE in Scotland
- Long-Term Retentions Guidance for their selection and management on the NFE in Scotland



## Appendix II: Land Management Plan Brief

#### Contents

- 1. Key Background Information
- 2. Strategic Drivers
- 3. Draft Management Objectives



## **Key Background Information**

#### Introduction

- The South West Fife Forests are a collection of several forests and woodlands covering an area a little over 1309 Ha located primarily within the Tulliallan, Culross and Saline areas of Fife although a small area of Gartarry sits within Clackmannanshire. The main woodlands covered within this LMP are Devilla Forest (~771 ha), East Grange (~197 Ha), Muirside (~150 Ha), Cadgerford (~123 Ha), Balgownie (~44 Ha), Shires Mill (~14 Ha) and Gartarry (~11 Ha).
- The Forests lie on the lowland hills and valleys on the northern banks of the Firth of Forth to the south of the
  Ochil Hills, with Kincardine and Saline the largest settlements. The forests complement the wider mixture of
  woodlands and agricultural fields.
- This management plan will revise the previous Forest Design Plans for all of these forest blocks under one
  Land Management Plan. This new plan will synchronise the management approval for these forests into a
  single new 10 year plan, associated not only by their geographic proximity to each other but also due to their
  similar attributes such as their lowland character and relatively fertile soils.

#### Silvicultural Potential

- Elevation ranges from around 20m above sea level in the south of East Grange rising to 125m to the east of Muirside. The sites sit within a gently undulating landscape of largely glacial till overlying limestone coal formations, resulting in a matrix of fertile surface water gleys and brown earths with some areas of peaty surface water gley and juncus bog. Typical and ironpan podzols are also prevalent in Devilla Forest.
- The climate is classified as warm/moist and ranges from sheltered to moderately exposed and therefore are
  all conducive to good conifer tree growth with few limitations on silvicultural options. Climate change
  predictions suggest that the climate will become generally warmer, with drier summers and wetter winters.

#### **Current Management Approach**

- Approximately 75% of the site is under woodland cover, with a further 1% having been felled awaiting
  restocking and the remainder given over to open ground concentrated primarily in several large pockets
  across the site. Scots accounts for 47% of the woodland. Broadleaves currently account for approx. 27% of the
  woodland area.
- The current split in terms of age classes structure is approximately 19% establishing crop (0-10 years), 14%
   SW Fife Forests LMP | S. Towers | Apr 2021



thicket (11-20 years), 7% pole stage (21-40 years), 10% mature (41-60 years) and 50% old forest (61+ years). Age diversification is therefore reasonably good, although there is a noticeable absence of thicket-mature stage crops currently.

- Much of the mature Scots pine crop at Devilla Forest and Gartarry have been previously thinned although historic thinning records are scant and thinning interventions sporadic resulting in much of the remaining crop being close to final spacing with underdeveloped crowns and reduced dbh. This has led to an understory of prolific birch natural regeneration, normally a welcome and useful component to improve the seed bed but given the incidence of Dothistroma Needle Blight in the pine we are ruling out the option of encouraging pine regen to succeed the current crop. The relatively sheltered nature of the sites and predominantly mineral soils suggest all the sites are suitable for management by ATC methods in principle although this may need to be postponed until next rotation in some areas.
- The forests have a road network totalling approx. 38 km, allowing economic operational access (i.e. 500 m or less) for most of the sites although the northern part of East Grange, Shires Mill and all of Muirside fall out with this which will need consideration for future thinning operations.

#### Main Considerations

- Several Rights of Way and Core Paths run through the sites, and there is a formal parking area at A985
  entrance to Devilla Forest although no other formal parking elsewhere. Devilla Forest is used extensively by
  various users such as walkers, cyclists and horse riders using both the forest roads and informal paths. An
  archery group regularly used the wood at Gartarry.
- Important species present include Red squirrel, Pine marten, Tree pipit, Wood warbler and Bluebell. Habitats include basin mires, semi-natural woodland, lowland raised bog and lochs all providing valuable habitat for various species. Designations include the Lockshaw Mosses Site of Special Scientific Interest at Muirside as well as five Local Nature Conservation Sites: Moor Loch, Devilla Forest Mires, Valleyfield Wood, Blairhall Bing & Dun Moss. There are areas of Ancient Semi-Natural Woodland in Preybrae Wood in Devilla Forest, Balgownie and East Grange along with areas of Long Established Plantation Origin in Devilla, Balgownie, Gartarry, Cadgerford and Muirside. PAWS restoration work has been undertaken at Balgownie and wider rhododendron control at various locations.
- There are three scheduled monuments within the plan area; Keir Wood Fort and Castle Hill Enclosure both within Devilla Forest and Kinneddar Mains in Muirside. Various undesignated features across the sites are



recorded in the heritage layer such as banks, dykes, standing stones, wells etc. Devilla and Shires Mill overlap Tulliallan and Valleyfield Garden & Designed Landscapes respectively.

- Situated within the lowland hills and valleys and its matrix of woodland and agriculture the forests fit well visually within the wider landscape so the impact of any change to felling areas will need to be considered.
- The Bluther Burn runs through Muirside, skirting Cadgerford before bisecting Balgownie and East Grange and flowing into the Forth Estuary at High Valleyfield which skirts two of SEPA's Target Flood Areas. The burn is identified as at high risk of flooding on SEPA's Flood Risk Map. The Burn is considered in poor condition due to its poor access for fish migration. SEPA's Flood Risk Map also identify areas along Keir Burn in Devilla, around East Grange Farm and Cadgerford as at high risk of surface water flooding. A swathe of Devilla generally following the Keir Burn sits within a planned Flood Protection Scheme Study led by Fife Council to assess whether flood storage, flood defences, sediment management and natural flood management could reduce flood risk to Culross and Kincardine.
- Roe deer are the primary herbivore species present, with a small population of Sika also found with Devilla
   Forest and deer and other damaging herbivore numbers are monitored and controlled by FLS Wildlife Ranger
   Staff.



### 2. Strategic Drivers

To succeed in realising the vision as set out in the Scottish Forestry Strategy 2019-2029, Six priorities for action been identified for implementation:

- 1. Ensuring forests and woodlands are sustainably managed
- 2. Expanding the area of forests and woodlands, recognising wider land-use objectives
- 3. Improving efficiency and productivity, and developing markets
- 4. Increasing the adaptability and resilience of forests and woodlands
- 5. Enhancing the environmental benefits provided by forests and woodlands
- 6. Engaging more people, communities and businesses in the creation, management and use of forests and woodlands

In order to demonstrate how we will have regard to the Forestry Strategy in our work, we have identified the relevant Forestry Strategy 'Priorities for Action' in our Corporate Outcomes section of the FLS Corporate Plan 2019-2022. Our Corporate Outcomes and the associated Operational Actions to deliver them have informed the objectives for this LMP illustrated in Table 12 below.



## **3. Draft Management Objectives**

Table 9 – Relevant Corporate Outcomes and Operational Actions informing the LMP Objectives

Corporate Outcomes Relevant to LMP	Operational Actions To Deliver Outcome Relevant to LMP	Draft LMP Objectives
Outcome 1: Supporting a Sustainable Rural	Managing the national forests and land in accordance	Manage for production of high quality soft and hardwood
Economy	with the UK Woodland Assurance Scheme (UKWAS) to	timber
	ensure that timber and other products produced by FLS	Continue to work with Patersons (who lease part of
FLS supports a sustainable rural economy by	are guaranteed to be from a sustainably managed	Devilla Forest to quarry for Silica Sand) to restore Sootrie
managing the national forests and land in a way	resource	Wood.
that encourages sustainable business growth,	Developing our forest planning processes to ensure	
development opportunities, jobs and	long-term sustainable productivity of the national	
investments.	forests and land	
	Providing a sustainable supply of timber to Scotland's	
	timber processing sector	
	Implementing the Restocking Strategy for the national	
	forests and land and develop a new plant and seed	
	supply strategy	
	Supporting Scottish tourism and the visitor economy	
	through the provision of visitor attractions	
	Support the venison processing sector through our	
	deer management	
	Continuing to operate mineral leases across the	
	national forests and land thus providing important	
	minerals to the industry such as Barytes and silica sand	



Corporate Outcomes Relevant to LMP	Operational Actions To Deliver Outcome Relevant to LMP	Draft LMP Objectives
Outcome 2: Looking after Scotland's national	Managing the national forests and land to further the	Pre-emptively remove larch
forests and land	conservation and enhancement of biodiversity	Protect and enhance forest habitat networks, priority
	Maintaining and enhancing our work on peatland	habitats (inc Preybrae Wood PAWS restoration) and
Scotland's national forests and land are looked	restoration	species.
after; biodiversity is protected and enhanced;	<ul> <li>Collaborating with partners on integrated landscape-</li> </ul>	Continue to control rhododendron
and more environmental services are provided	scale approaches to habitat management and	Protect historical features
to people.	restoration	Mitigate against excessive water runoff in catchments
	Taking specific conservation action for vulnerable	
	priority species (e.g. red squirrel, capercaillie, black	
	grouse)	
	Supporting policy development and research, and act	
	as a testbed for new and innovative approaches to	
	forestry and land management	
	Developing an asset management approach to the	
	historic environment within Scotland's forests and land	
	Working with neighbouring land managers to	
	undertake landscape-scale control of rhododendron to	
	conserve ground flora and improve habitats	
	Continuing to implement the Larch Strategy in order	
	to reduce the rate of expansion of Phytophthora	
	ramorum	



Corporate Outcomes Relevant to LMP	Operational Actions To Deliver Outcome Relevant to LMP	Draft LMP Objectives
Outcome 3: National forests and land for visitors and communities  Everyone can visit and enjoy Scotland's national forests and land to connect with nature, have fun, benefit their health and wellbeing and have the opportunity to engage in our community decision making.	<ul> <li>Maintaining walking and biking trails to promote fun in the outdoors, focussing on improving entry level experiences for everyone to enjoy and gain health benefits</li> <li>Continuing to remove barriers to ensure that people from all backgrounds can and do access the full range of benefits of the national forests and land</li> <li>Enabling outdoor learning and encouraging schools and community groups to make use of the national forests and land</li> <li>Continuing to engage communities in decisions relating to the management of the national forests and land</li> <li>Continuing to support community empowerment by enabling communities to make use of the national forests and land to benefit their communities</li> </ul>	<ul> <li>Maintain attractive woodlands and trails and other recreational opportunities to promote fun in the outdoors for all.</li> <li>Retain mature Pine character of Devilla where appropriate.</li> </ul>
	Torests and faild to benefit their communities	



## Appendix III: Land Management Plan Consultation Record

Table 10 - LMP Consultation Record

Consultee	Date contacted	Date response	Consultee Comment/Issue Raised	Region Response
		received		
Fife Council (Planning & Andrew Sim Fife Planner, Archaeology, Biodiversity & Access)	15/02/2021	-	No comment	N/A
Historic Environment Scotland	15/02/2021	18/03/2021	Thank you for your consultation dated 15 February regarding the SW Fife Forests Management Plan. Historic Environment Scotland's remit is to comment where proposals might impact upon the fabric and/or setting of nationally important designated historic features, such as Scheduled Monuments, Category A- Listed Buildings, World Heritage Sites, sites on the Inventories of Gardens and Designed Landscapes and Historic Battlefields, and Historic Marine Protected Areas. There do not appear to be any sites within our remit in the following forests: Balgownie, Cadgerford, East Grange, and Gartarry. However, there are a number of sites within our remit in the other forests covered by the management plan: Tulliallan GDL00379	Noted



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			A small section of the Dervilla Forest is	
			included in the Tulliallan Inventory garden	
			and designed landscape GDL00379. We	
			welcome the proposals to manage invasive	
			rhododendron in this area. In terms of the	
			long-term management of these	
			woodlands, we are content with the	
			proposal to clear fell areas, restock and	
			then manage these areas through long term	
			alternatives to clearfelling (ATC) methods.	
			Additionally, three scheduled monuments	
			are within the forests covered by the plan	
			and we welcome that these are identified	
			on page 27 of the main plan document,	
			pages 48 and 51 in the plan Appendices,	
			and also shown as heritage features on the	
			Opportunities and Constraints Map.	
			Devilla Forest contains:	Noted
			SM8549 Castle Hill, enclosure, Bogside	
			Wood	
			The monument is a large oval enclosure. It	
			is located on a slight rise within an area of	
			mature plantation woodland. It has an	
			entrance in the SE, and is defined by a bank	
			and external ditch, 60m NW-SE by 45m. The	
			trees are well spaced Scots pine, marked for	



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			long term retention. When we last	
			undertook a condition monitoring visit in	
			December 2019, it was noted that	
			rhododendron growing on the W side had	
			largely been controlled, but a blanket of	
			dense bracken beneath the trees covered	
			the whole site.	Noted
			On the Opportunities and Constraints Map,	
			SM8549 is identified as a heritage feature	
			and on page 27 of the main plan document	
			the forward management of the monument	
			is stated as: 'Castle Hill enclosure (Bogside	
			Wood) - FLS will continue Rhododendron	
			and birch tree regeneration control.' This is	
			welcomed and, if possible, the control of	
			bracken which obscures and inhibits access	
			to the monument is also recommended.	
			SM13358 Keir Wood, fort, 370m NE of The	Noted
			Boathouse	
			Close to the E shore of Moor Loch, the	
			monument is a promontory fort, thought to	
			be in use from sometime between the late	
			Bronze age and the medieval period (1200	
			BC – 1100 AD). The monument was	
			scheduled in October 2013 and a condition	
			monitoring visit has not yet been	



Consultee	Date contacted	Date response	Consultee Comment/Issue Raised	Region Response
	_	received		
			undertaken.	
			On the Opportunities and Constraints Map,	
			it is identified as a heritage feature and an	
			area to be managed as open ground. This is	
			reinforced on page 27 of the main plan	
			document where it states: 'Keir Wood Fort	
			– FLS will continue to monitor the condition	
			of the site and ensure the removal of all	
			intrusive scrub vegetation and	
			regeneration.' This is welcomed.	
			Muirside Forest contains:	
			SM8541 Kinnedar Mains, enclosed	Noted
			settlement 200m WNW of	
			An enclosed settlement of prehistoric date,	
			sub-circular in plan and defined by a ditch,	
			is visible as a cropmark on oblique on aerial	
			photographs. When we last undertook a	
			condition monitoring visit in November	
			2020, it was noted that the scheduled area	
			is in a large unplanted clearing within mixed	
			species woodland and that there was a very	
			light scattering of deciduous regen across	
			the scheduled area, to a maximum of 1.5m	
			tall.	
			On the Opportunities and Constraints Map,	
			it is identified as a heritage feature and an	



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			area to be managed as open ground. This reinforced on page 27 of the main plan document where it states: 'Kinnedar Mains (enclosed settlement) - FLS will continue to monitor the condition of the monument and ensure the removal of all bracken, intrusive scrub vegetation and regeneration'. This is welcomed.	
			Comments on Opportunities and Constraints Map One of the notes on the Opportunities and Constraints Map states: Scheduled Heritage Features Castle Hill Earthworks and Keir Wood Fort Potential to allow managed natural regen on features to reduce ongoing maintenance burden keeping them clear of vegetation. Trees may diminish context and setting of features as well as potentially damaging features.  Allowing natural regeneration of woody	In this instance the opportunities and constraints map is a means to illustrate potential areas where a change may be investigated further. The analysis is developed further in the Initial Outline Concept Map where it states "Discuss with HES possibility of allowing some trees to establish to inhibit other vegetation regenerating otherwise continue to manage features as per management plan agreed with HES." Essentially this was an internal FLS discussion looking at whether there were any potential alternative management tools to reduce the vegetation management burden on these sites. We have no plans to alter the agreed management of these sites, this analysis simply identified that
			growth on the monuments risks damage to underlying archaeology. It would be at variance both with the management prescriptions set out in the plan text and the stated aim (page 48 of the plan	discussion and agreement with HES would be required should that situation change.



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
NatureScot	15/02/2021	04/03/2021	Appendices) 'to ensure and demonstrate Forestry and Land Scotland compliance with the UK Forestry Standard.' In finalising the plan, if it would be helpful, we would be happy to discuss with FLS an appropriate management regime for each of the scheduled monuments. Further Information If you have not already done so, you should seek the advice of the local authority archaeological service regarding impacts on the unscheduled archaeological sites within the forest plan area.  Thanks for consulting us on the SW Fife Forests Land Management Plan. We are commenting on Lockshaw Mosses SSSI, which is part of the Forest holding, and are content to leave all other natural heritage issues to Scottish Forestry and Forestry and Land Scotland. We are pleased that the SSSI will be monitored and management continued. We note that a jointly agreed management plan for the SSSI runs to March 2022 and will be pleased to discuss the next version in due course.	Noted
			Regards	



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			David Shepherd   Area Officer	
SEPA	15/02/2021	-	No comment	N/A
Scottish Water	15/02/2021	24/03/2021	a few assets to highlight.	Noted
			Drinking Water Protected Areas	
			A review of our records indicates that there are no Scottish Water drinking water	
			catchments or water abstraction sources,	
			which are designated as Drinking Water	
			Protected Areas under the Water	
			Framework Directive, in the area that may	
			be affected by the proposed activity.	
			Scottish Water Assets	
			A review of our records indicates that there	
			are Scottish Water assets within some of	
			the sites.	
			Gartarry – No concerns, no assets within the	
			site.	
			Devilla Forest – A 250mm ductile iron/10"	
			spun iron distribution main runs along the	
			southern boundary of the site and is located	
			within the site boundary at points. Surface	
			water sewer possibly within the southwest	



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			corner of the site. There is also a private 6" cast iron supply pipe feeding Tulliallan Castle/Police College. This pipe will be owned and maintained by the college.  Balgownie – A 12" spun iron trunk water main runs within the eastern boundary of the eastern most compartment and a 4" cast iron distribution water main runs along	
			the western boundary of one of the compartments, possibly within the compartment.  East Grange – No assets within the compartment. There is a 12" spun iron	
			trunk water main shown running along the road verge adjacent to the compartment so it may be affected by the works. There is a section of culverted watercourse shown within the compartment; this is not a Scottish Water asset but is owned by the local council.	
			Muirside – A 4" asbestos cement water distribution main runs along the road verge at the southwest corner of this area, and a 225mm vitrified clay (VC) combined sewer, a 225mm VC foul sewer and a 150mm VC	



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			surface water sewer are located within the northeast corner of this area.	
			Cadgerford – There are two sections of 3" uPVC water distribution main at the northeast corner of this area.	
			This should be confirmed however through obtaining plans from our Asset Plan Providers. Details of our Asset Plan Providers are included in the SW list of precautions for assets, which can be found on the activities within our catchments page of our website at www.scottishwater.co.uk/slm.	
			All Scottish Water assets potentially affected by the activity should be identified, with particular consideration being given to access roads and pipe crossings. If necessary, local Scottish Water personnel may be able to visit the site to offer advice. All of Scottish Water's processes, standards and policies in relation to dealing with asset conflicts must be complied with.	
			In the event that asset conflicts are identified then early contact should be	



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			made with HAUC Diversions Team via the	
			Development Services portal -	
			https://swastroprodweb.azurewebsites.net	
			/home/default. All detailed design	
			proposals relating to the protection of	
			Scottish Water's assets should be submitted	
			to the HAUC for review and written	
			acceptance. Works should not take place on site without prior written acceptance by	
			Scottish Water.	
			Scottish water.	
			Scottish Water have produced a list of	
			precautions for a range of activities. The list	
			of precautions for assets details protection	
			measures to be taken if there are assets in	
			the area. Please note that site specific risks	
			and mitigation measures will require to be	
			assessed and implemented. The	
			document/s and other supporting	
			information can be found on the activities	
			within our catchments page of our website	
			at www.scottishwater.co.uk/slm.	
			It should be noted that the proposals will be	
			It should be noted that the proposals will be required to comply with Sewers for	
			Scotland and Water for Scotland 4th	
			Editions 2018, including provision of	
			appropriate clearance distances from	



Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
		Scottish Water assets.	
		If you have any questions relating to the above, please do not hesitate to contact me.	
		Kind Regards Jacqueline Tait Regulatory Advisor – Sustainable Land Management Team	
11/02/2021	08/03/2021	I am writing following representations form constituents in relation to proposed changes for the management of the Devilla Forest, which I understand have been set out under a new management plan from Forestry and Land Scotland.  I understand that the forest is well used by local people, and has a good track record in terms of biodiversity, due to the existing low intensive management of the native Scots pine trees. I also understand that the new FLS plan now has a long-term goal of replacing these with non-native conifers.	Dear Mr Fraser Thank you for your email. The points you have raised will be taken into account in the consultation on the Draft plan for SW Fife Woodlands. All of the points below will be addressed in the final plan and the consultation responses. The final plan and responses will be emailed to you and available for all to review on the consultation webpage at South West Fife Forests land management plan consultation - Forestry and Land Scotland in Appendix 3.  Once the consultation has completed, we will email you with all the consultation responses and the final plan. I will be happy to discuss the plan or
1	.1/02/2021		If you have any questions relating to the above, please do not hesitate to contact me.  Kind Regards Jacqueline Tait Regulatory Advisor – Sustainable Land Management Team  1/02/2021  08/03/2021  I am writing following representations form constituents in relation to proposed changes for the management of the Devilla Forest, which I understand have been set out under a new management plan from Forestry and Land Scotland.  I understand that the forest is well used by local people, and has a good track record in terms of biodiversity, due to the existing low intensive management of the native Scots pine trees. I also understand that the



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			will have a negative impact on both biodiversity, and the broader appeal of the	received this."
			woodland. There is also the potential for a negative impact on the native red squirrel population.	Yours sincerely
				Yvonne Grieve
			I would be grateful if you could take these views into consideration in your consultation on the new plan. Yours sincerely,	Planning Manager
			Murdo Fraser MSP	
			Member for Mid Scotland & Fife (Scottish Conservatives)	
Elizabeth Smith MSP for Mid Scotland and Fife	11/02/2021	05/03/2021	Dear Ms McGinnes SUBJECT: SOUTH WEST FIFE FORESTS LAND MANAGEMENT PLAN CONSULTATION	Dear Ms Smith, SWF Forests Land Management Plan Consultation
			I am writing on behalf of my constituents, who have raised concerns over Forestry and Land Scotland's consultation and its plans	Thank you for your letter dated 5 March 2021, on behalf of your constituents, regarding the South West Fife Forests Land Management plan
			for the ten forests in South West Fife, namely Devilla, and specifically the proposed removal of Scots Pine.	Consultation. We appreciate your constructive comments and suggestions and will include these and your concerns as part of our overall feedback
			I have reviewed all the available	to this consultation.
			documentation, and I would be grateful for	As the consultation period has just closed on
			a response to the following.	Sunday 14 March we will now take some time to
			I understand that the consultation was	consider all of the responses received before we



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			meant to run in Winter 2021 before being sent to Scottish Forestry. I've been made aware of a poster in Devilla car park which references the restrictions placed on the usual community engagement activities that Forestry and Land Scotland would run – and therefore, a smaller-scale consultation is required. I am uncertain why engagement is happening now, and I am concerned that extensive deliberation on the plans is not taking place.  The argument in favour of removing Scots Pine is, of course, disease. However, I'd be grateful if you could expand on the scientific research behind this proposal.  The main concerns from the community, which you'll be able to appreciate, centre on the impact on biodiversity, namely red squirrels, and the overall aesthetics of the forest.  I realise time is short before the consultation closes – however, I'd be appreciative of your thoughts and a detailed statement on the points raised.  Yours sincerely	finalise the plans. The final plan and all responses received will be available to review on the consultation webpage at South West Fife Forests land management plan consultation - Forestry and Land Scotland in Appendix 3.  As is the case with all the forests in our care, we manage Devilla with a view to long-term sustainability. Unfortunately, we are concerned that the existing Scots pine crop is infected with Dothistroma Needle Blight (DNB). If that is the case, then (from research) the Scots pine will not grow to their optimum size, which will impact on their commercial value. Moreover, the impact of this disease on younger trees would be even worse potentially making them unmarketable and unsustainable. The concerns you have raised will be taken into account in the consultation and will be addressed in the final plan and the consultation responses.  You also raised some concerns about how we have conducted our consultation and I would like to reassure you that we have taken a number of steps to ensure that consultation information reached as wide a range of audience as possible. The posters were put up in the car park on the 11th February indicating the closure did not take place until the 1st March 2021.
			Elizabeth J Smith	In addition to these posters we have;



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				<ul> <li>Posted the consultation on the FLS webpage on 11th February 2021.</li> <li>We advertised through both engagement and a letter drop to neighbours and local communities (notice boards) (Approx. 60 letters distributed).</li> <li>The consultation was emailed to identified stakeholders, neighbours, local community groups, local activity groups and.</li> <li>We used social media sites to target 9200 members and is on the Scottish Forestry public consultation register and;</li> <li>Involved Community Rangers to engage with Devilla car park visitors on Mon 15th Feb 2021.</li> <li>By liaising with social media site administrators we are able to reach the relevant audiences identified by the stakeholder analysis.</li> <li>I am happy to discuss the plan or any further concerns you may have once we have time to consider these and other responses we have received.</li> <li>Yours Sincerely Carol McGinnes Regional Manager</li> </ul>
James Silvey	22/02/2021	23/02/2021	I have three main concerns with the plan as it currently stands all broadly related to the	Dear Mr Silvey,



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			proposed change to non-native conifers at Devilla;	Thank you for your interest and useful feedback on the LMP. From your comments and others received during our consultation we have reconsidered our position on restocking with Scots pine and will now use it in mixture with other site suited conifer species. We have also assigned ~57 hectares of mature Scots pine woodland at Devilla, around the Red squirrel trail, for Minimum Intervention management in order to retain the character and biodiversity of this area for as long as possible.
			1. Not enough emphasis is given to Devilla's current importance for biodiversity  Fife is the most heavily cultivated region of Scotland with only three large forest areas Blairadam, Devilla and Tentsmuir. Only Devilla and Tentsmuir have a dominant native tree component making them particularly valuable to biodiversity.  As a well thinned, Scots pine forest Devilla is an amazing resource for a wide range of biodiversity from red squirrels and pine martens to ospreys and goshawks. The	In terms of biodiversity, Section 3.4 of Appendix I lists both the Priority and other noteworthy habitats and species found within the plan area. It also lists the SSSI designation, Local Conservation Sites, ancient woodlands and touches on our work to remove Invasive Non Native Species. We also refer to how the forests sit within the landscape character as described by NatureScot in section 3.3.  Regarding raptors, FLS carry out studies and surveys of the forests as part of the LMP process. We have also established a line of communication



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		received		
			previous management of the forest has	with the Tayside & Fife Raptor Study Group to
			given rise to a well-established field layer	allow notification of new sensitive locations and
			consisting of blaeberry, birch and heather,	share information; though in this case we've not
			and would not be out of place in areas of	received any formal contact to date. As a matter of
			the Cairngorms Caledonian pinewood	course, we also carry out surveys prior to
			forest.	operations and if any species is reported as at risk
			Devilla is of particular importance to red	we implement the necessary mitigation
			squirrels with the site being a local	appropriate to the species and nature of
			stronghold for the species. The plan	operation.
			recognises that red squirrels are present but	
			makes the broad assumption that the	With regards the benefits of alternative conifers to
			proposed alternative non-native tree	Red squirrel, our proposals were not intended to
			species are as beneficial to squirrels as	suggest alternative species were as beneficial as
			native Scots-pine. I have not been able to	Scots pine only that many are also beneficial e.g.
			find any research indicating that this is the	Norway spruce & Douglas fir. The Scots pine is
			case and the concern is that if these species	outside its native range and is likely not of native
			are not as useful to squirrels ,then the	provenance however we do recognise its
			forest will slowly become less and less	importance as habitat for important species and
			suitable for the species.	character so as such the plan also proposes the
			The conversion of the forest to non-native	retention of a significant over story of mature
			conifers also requires a move to more clear-	Scots pine to be of continued benefit to these
			felling techniques which are extremely	species. We do have local evidence of red squirrel
			destructive and reduce habitat connectivity.	and Pine marten thriving at Blairadam which is
			The plan states that seed trees will be left to	generally unthinned Sitka spruce, but this is very
			preserve the aesthetics of the woodland	different to how we propose to manage Devilla.
			and improve connectivity but research into	We recognise the importance of these species
			this approach seems to indicate that these	among others and have reconsidered our position
			well-spaced trees become very susceptible	on restocking and we will now also plant Scots pine



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			to wind blow. Therefore, regardless of the intention these areas could still become large patches within the forest absent of standing trees.	in mixture with other site suited conifers to replenish areas of felling underneath the retained mature Scots pine.
			The plan needs to be more explicit about how important the forest is for the local biodiversity and how this is tied to the tree species that are present and the management techniques that are undertaken. This was given much more emphasis in the previous plan and I would encourage FLS to reconsider the changes in management proposed based on the importance of the site for its biodiversity interests.	With regards windblow risk as this is an already heavily thinned forest, experience leads us to expect that the retained mature Scots pine over story has built up good wind resilience and will remain wind firm.
			2. No reference is given to how the change in management will affect the rich field layer currently present on the site  One key characteristic of Devilla is the rich field layer that is present between the well thinned Scots pine trees. This is of benefit to the woodlands aesthetically but also to the forest's biodiversity which thrives within	Regarding how our proposed future management might impact the field layer or ground vegetation the evidence from our past management on site is that it is quite robust during operations with heather, blaeberry and birch recovering relatively quickly and continuing to develop and thrive with maintained by way of regular thinning interventions as will continue to be the case at Devilla. You will see from Appendix VII (image 4) a
			the complex habitat present beneath the trees. The planting densities that are currently planned of non-native conifers	recent p2017 restock of Macedonian pine and Serbian spruce with heather, blaeberry and birch growing within it.



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		received	and the shorter rotation periods that these species will bring will not leave enough time for the field layer to fully recover and as such will be lost. This can be clearly seen in sites like Blairadam where the forestry practises have created a blanket across the land that has no time to recover between thinning, felling and replanting activities. I believe the current plans will ultimately be disastrous for both Devilla's field layer and the biodiversity it supports and would therefore support a plan that prioritises native trees and sympathetic woodland management.	As per the initial stand development of all forest species when the stand achieves canopy closure, light levels to the forest floor are reduced and field layer development may be interrupted. The intention of this plan is to minimise any interruption through timely first and subsequent thinning interventions which will benefit woodland ground flora by opening up the canopy and allowing light to reach the forest floor as has always been the case at Devilla.  It is also important to note that most of the mature forest is currently ~ 65 years old and the long term vision of diversifying the forest will take the best part of a century with approximately 50% of Devilla not expected to be diversified for over 50 years in the future. Therefore, as we approach the 2070's and beyond the areas we propose to diversify in the life of this plan, will themselves be well thinned stands with well-developed field layers underneath providing important habitat. These well thinned mature mixed stands of the future will then be suitable to be managed by way of CCF or LISS.
			3. There seems to be little evidence to justify the significant change in management away from Scots pine.	There is substantial evidence to justify embedding resilience into the species composition at Devilla with DNB significantly impacting recent Scots pine planting however we appreciate the potential



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			The plan explains the removal of Scots pine in favour of non-native conifers due to the presence of Dothistroma Needle Blight (DNB) however there appears to be no published evidence to justify this action.	biodiversity impacts and therefore we have revisited this and now will use Scots pine to restock areas in mixture with other proposed species to better ensure we have a future canopy. The hope is that the DNB inoculum load between individual pine trees, which has seen other relatively recent pure Scots pine restocks heavily impacted by DNB, will be reduced when planted in mixture.
			The Forest Research website (https://www.forestresearch.gov.uk/docum ents/2341/fcrn002.pdf) states that the disease rarely appears to be causing significant damage to this species (Scots pine) and goes on to suggest Scots pine as an alternative to more susceptible pine species Alternatively, species of pine which are considered to be fairly disease resistant, for example Scots pine, can be used as replacement species. If Forest Research are suggesting Scots pine as an alternative pine species in DNB areas, why is this plan recommending their wholescale removal?	The publication referred to is a relatively old publication (2008) and since then it has been recognised that Scots pine has been more severely affected than was known at that time. The suggested use of Scots pine as a less susceptible alternative to Corsican pine or Lodgepole pine relates to areas where generally only pine species are ecologically site suited which is not the case at Devilla. Scots pine is no longer considered fairly disease resistant and we have evidence from Devilla itself that relatively recent restocking with Scots pine (mid to late 2000's) are heavily infected with DNB (see Appendix VII images 1 and 2). The forest is largely mature and has been in the process of diversification for many years with most recent restocking not featuring Scots pine since around 2009 however this plan does not recommend wholesale removal, in fact, it proposes retention of a significant over story of Scots pine



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				with various site suited alternative species being proposed in mixture to develop underneath it. We do however accept that the impact of DNB on the Scots pine at Devilla is, as yet, not catastrophic so given the feedback from this consultation we will revisit restocking with Scots pine in mixture with the other proposed species to retain its biodiversity benefit as long as we can but this situation will need to be continually monitored and reviewed.
			The most recent DNB action plan (https://scotland.forestry.gov.uk/images/co rporate/pdf/Dothistroma-Action-Plan-for-Scotland-2018.pdf) also makes no mention of felling of Scots pine where the disease is present. Instead the plan recommends that high nature conservation pinewoods (which I would consider Devilla would qualify) are protected Protect the environmental, social and economic functions of Caledonian and other high nature conservation pinewoods.	The DNB action plan referred to also has as the primary objective to minimise the economic impact of DNB. As you will hopefully see in the first 2 images of Appendix VII, DNB is prevalent within the younger stands at Devilla and East Grange and is having a significant impact on them (please note the lack of retained needles impacting trees ability to photosynthesize and put on annual growth) and therefore our proposals were very much in context to the situation at Devilla.
			The plans only reference to felling is to Encourage removal of stands with highest inoculum loading (primarily inland origins of lodgepole pine).	For clarification it was stated that DNB doesn't necessarily kill Scots pine however it can eventually cause mortality or have such an impact as to severely inhibit its growth and productivity (as opposed to profitability). i.e. infected crops would be expect to grow much less and therefore have



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				much reduced carbon capture functionality,
			Taking these papers into consideration I	critically important to mitigate climate change.
			believe the proposed actions for Devilla are	
			out of context with the current situation,	The forest has to be managed sustainably and that
			and what is recommended nationally in the	means we have to balance the 3 pillars of
			management of the disease. Having spoken	environment, social and economics and therefore
			to the local FLS team they were clear that	if a pure Scots pine stand doesn't develop to
			DNB does not kill the young Scots pine but	maturity it won't achieve similar biodiversity and
			simply reduces their vigour which ultimately	character as is currently present so we have to look
			affects the profitability of the trees. Whilst I	to build in resilience.
			accept this may be the case I believe that	
			when this is weighed against the	As mentioned previously we have taken on board
			importance of the site both from a	the feedback from this consultation and will revisit
			biodiversity point of view and aesthetically	the use of Scots pine in mixture with other site
			to the people that visit it, then the move to	suited conifer species to benefit biodiversity whilst
			non-native conifers is both unwarranted	installing extra resilience into the forest. The forest
			and potentially damaging.	will continue to be regularly thinned and attractive
			I would urge FLS to reconsider the plan and	with the existing matrix of watercourses,
			revert their management to that set out in	vegetation and habitats maintained as appropriate.
			the previous plan which describes Devilla	
			as, a well thinned and attractive forest that	As described above our proposals have been
			has been managed to improve the existing	thoughtful and considerate of the various factors
			matrix of watercourses, vegetation and	which make Devilla what it is today and the
			habitats throughout. Areas of exotic	evidence we see of the impacts of disease mean
			conifers have been removed, which has	that as responsible custodians of the forest we
			helped the ground vegetation to recover,	need to consider and balance the various
			and a number of other operations have	objectives and range of views to best ensure its
			been carried out to preserve other habitats.	long term sustainability.



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			Previous forestry management of Devilla has created a rich resource both for people and biodiversity. I can find no evidence to warrant the proposed changes outlined in this plan and as such the changes appear to put profitability over biodiversity and are therefore not supported.	
Margaret Silvey	11/02/2021	04/03/2021	I was given your email address from my local councillor. I am greatly concerned regarding the felling of trees in Devilla forest which looking at your map is extensive.  This forest is extremely important to a great number of people who use it for recreational purposes.  The wild life i.e. Red Squirrels are often seen in this forest and you actually have a squirrel walk advertising the fact that they are there.  Why are you felling all Scots pine and replacing with non-native trees.  Where are these non-native trees being sourced from.  Can you guarantee that they are disease free.  Will these trees sustain the Red Squirrels which are an endangered species.	Dear Ms Silvey,  Thank you for your email and for your interest in Devilla forest. I appreciate you taking the time to highlight your concerns. There is an ongoing consultation on the future woodland management as part of the SW Fife Land Management Plan. The consultation is still open and we will take your points and ensure they are considered as feedback on this consultation. A response to these will be available once all the responses have been gathered and the consultation period has ended.  After the consultation and consideration of the responses the plans will be finalised. The consultation page is available at https://forestryandland.gov.scot/what-we-do/planning/consultations/south-west-fife-forests-land-management-plan-consultation (Appendix 3).



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		received	The whole biodiversity of the forest is in danger for what looks like commercial gain. The car park is closed therefore your notice announcing changes to the forest will not be seen by the general public hence limiting opposition to your proposals.  I realise that the forest is run as a commercial business but why must you fell all Scots Pines which are relied upon by the wild life within the forest all the forest not just the Squirrel walk. The squirrels are not confined only to this part of the forest and you cannot guarantee that these replacement trees will sustain these beautiful endangered animals.  I await your reply  Margaret Silvey	number of steps to ensure that this information reaches a number of audiences. The posters were put up in the car park on the 11th February and the closure did not take place until the 1st March 2021. In addition to these posters we have;  Posted the consultation on the FLS webpage on 11th February 2021.  We advertised through both engagement and a letter drop to neighbours and local communities (notice boards) (Approx. 60 letters distributed).  The consultation was emailed to identified stakeholders, neighbours, local community groups, local activity groups and the local authority planners.  We used social media sites to target 9200 members and;  Involved Community Rangers to engage with Devilla car park visitors on Mon 15th Feb 2021.  By liaising with social media site administrators we are able to reach the relevant audiences identified
				by the stakeholder analysis. I am pleased that the consultation information has been able to reach



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				you through one of the above sources. Once the consultation has completed, I will be happy to discuss the plan or any further concerns you may have.  Yours sincerely, Yvonne  Yvonne Grieve   Planning Manager
Butterfly Conservation - East	11/02/2021	12/03/2021	Hi	Noted
Scotland Branch	11/02/2021	12/03/2021	I have submitted feedback regarding the provision of habitat and species management for butterflies in this LMP, and would appreciate receiving notification of further developments with the plan in particular when it is placed on Scottish Forestry's public register so as we can comment further.  Many thanks  Elspeth Christie	Noted
			Elspeth Christie and Gillian Fyfe Butterfly Recorders for Fife and Clackmannanshire	



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			Butterfly Conservation - East Scotland Branch	
			Section 1. Summary of proposals - the LMP objectives - objective 4 states 'protect and enhance forest habitat networks and priority habitats" Good to see this here in the objectives, however priority species must also be included here.	Noted – added to objectives
			More detail on the management of these habitats and networks would be useful particularly for invertebrates, including butterflies and other pollinators	Our Environment team would be happy to discuss our management at specific sites should you wish to contact them.
			Several species of locally important butterflies are found in Devilla and the other areas included in this plan including Purple Hairstreak, Green Hairstreak, Small Pearl-bordered Fritillary and Large Heath. Further consultation on how invertebrates can be managed along with other native wildlife and their associated habitats would be much appreciated.	Our Environment Team work with Butterfly Conservation and share information and they feed into operational work plans and we are aware of these species in the plan area.
Fife Red Squirrel Group	11/02/2021	12/03/2021	Hi, I have submitted feedback on behalf of the Fife Red Squirrel Group (FRSG) and would appreciate receiving notification of further developments with the plan in	Noted



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		received		,
			particular when it is placed on Scottish Forestry's public register so as FRSG can comment further.  Many thanks  Elspeth Christie Vice Chair of FRSG	
			Section 1. Summary of proposals - the LMP objectives - objective 4 states 'protect and enhance forest habitat networks and priority habitats" Good to see this here in the objectives, however priority species must also be included here.	Noted – added to objectives.
			More detail on tree species choice and the switch away from native Scots pine in many coupes. What are the benefits of using these non-native species so widely? More detail on the impact this will have on native wildlife particularly red squirrels.	With the retention of a significant mature Scots pine over storey and reconsidered use of Scots pine to restock in mixture with other site suited conifer we consider that the impact on Red squirrel will be minimal. These tree species, known to be beneficial to Red squirrel as a food source include Norway spruce and Douglas fir and they will provide supplementary seed in lean pine years.
			What diseases are these non-native species susceptible to, and in the longer term why should Macedonia Pine be more resilient to	At present Macedonian pine seems resilient to most pests and disease common in the UK with site based evidence now provided in Appendix VII



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			climate change and disease than Scots Pine - any evidence?	contrasting the impact DNB is having on young P2008 Scots pine at Devilla versus the apparent limited effect on P2017 Macedonian pine.
			More detail on the management objectives especially in 7.4.1. and 7.4.4. Acknowledge that grey squirrel control will be implemented if numbers increase, in order to protect red squirrels. Currently grey control is only mentioned in the context of preventing damage to trees.  Commitment to maintain and enhance the Red Squirrel Trail, and to increase the profile of the natural environment and opportunities for forest users to engage with nature.	The plan aims to provide a competitive advantage to Red squirrels by having a larger amount of conifers than broadleaves coupled with shelterwood management which encourages large tree sizes providing denning sites for Pine marten which predate more heavily on Grey squirrel controlling their numbers.  Section 7 of the plan and the Woodland Management in visitor zone map details our management of these which includes the Red Squirrel trail. Appendix IV Devilla Maintenance Plan also details our management to maintain infrastructure including the trail.
Kelvin Thompson	11/02/2021	11/03/2021	Hi, I have responded to your request for feedback on the current consultation that is ending 11 March.  I would like to be kept of the next steps for this plan as I have significant reservations as to the impact on the biodiversity and wildlife if the planned move away from natives species is carried out.	FLS carry out studies and surveys of the forests as part of the LMP process. We have also established a line of communication with the Tayside & Fife Raptor Study Group to allow notification of new sensitive locations and share information; though in this case we've not received any formal contact to date.  As a matter of course, we also carry out surveys prior to operations and if any species is reported as



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			Kind Regards,	at risk we implement the necessary mitigation appropriate to the species and nature of operation.
			Kelvin Chair, Tayside & Fife Raptor Study Group	
Ken Shaw	11/02/2021	25/02/2021	I had a quick look at your consultation on the above. Some issues are too sensitive to mention in such a consultation, I understand that. Can I therefore ask you if you have given much thought to your Goshawk population? I might be able to help you with that. If you need a ref for myself please speak with your colleague Gareth Mason at Dunkeld.  This may all be in hand and as you know the Goshawk is a fairly robust species. Hope this helps.	FLS carry out studies and surveys of the forests as part of the LMP process. We have also established a line of communication with the Tayside & Fife Raptor Study Group to allow notification of new sensitive locations and share information; though in this case we've not received any formal contact to date.  As a matter of course, we also carry out surveys prior to operations and if any species is reported as at risk we implement the necessary mitigation appropriate to the species and nature of operation.
West Fife Woodlands Group	11/02/2021	08/03/2021	We would like the following points to be	Thank you for submitting the response on behalf of
			noted and considered prior to the plan's approval and adoption.	the group to the South West Fife Woodlands consultation. The points you raise in your letter have all been noted - In response:
			1. We appreciate the opportunity to comment on the plan. West Fife Woodland	1-4. Noted
			Group (WFWG) volunteers perform several tasks in FLS woodland in particular in	



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			Balgownie Wood and Devilla Forest.	
			2. We have previously volunteered to undertake surveys and assist with the management of ponds, lochans and wetlands in Devilla Forest. In collaboration with other expert groups, we would be willing to undertake similar tasks in the future.	
			3. We found the documentation provided for comment difficult to follow on occasions as the Map numbers referred to in the plan are not shown on the actual maps.	
			4. We note the proposed provision of 50 metres of new forest road and hard standing to the east of the road leading from the A985 to the mothballed sawmill in Devilla forest.	
			5. We note that in the plan there is regularly mention of maintaining public access. We would prefer if this read maintain and enhance public access. Obviously with actions to back up words. (We have some proposals for consideration!)	5. Page 28 7.7. refers to enhancement of public access by way of increasing car park capacity



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			6. We note that on Map 11 showing paths and rights of way the signposted path between Saline and Bickramside and running through the Muirside section of woodland is not shown. "Saline to Bickramside path" map attached shows its location.	6. Saline to Bickramside path does not show as a path on our records, though we note we are discussing developing a route with yourselves and Saline & Steelend Development Trust to connect the villages of Saline and Oakley
			7. We note that Coupe 09011 in Balgownie Wood is scheduled for felling in the period 2021 to 2031 and we are concerned that a path (Recreational linear asset) that we have upgraded on the west side of this coupe is not shown on your Map 11. The path gets a lot of use by visitors and we would not want it to be damaged during felling operations. Map "Balgownie Wood path on west of coupe 09011" attached shows its location.	7. Coupe 09011: This desire line is not on our records. We will ask our harvesting team to consider this in their planning of the operation. What tends to happen in these circumstances is a new desire line evolves after the harvesting operation, on some occasions we have worked with volunteer groups to re-instate desire lines
			8. The path (Recreational linear Asset) shown on Map 11 and on the attached map "Balgownie Wood – no such path" does not exist. You may wish to update your records.	8. Noted, this is a desire line which has disappeared due to the windblow which has occurred in the area. We will update our records accordingly, thank you for bringing this to our attention.
			9. WFWG has created, documented, and publicised recreational assets (a network of	9. FLS will continue to work with volunteer and community groups to explore opportunities to



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			paths) in West Fife that have been well utilised by visitors and locals running, walking, and cycling. We aspire to expand this network by linking Saline with the Dunfermline to Alloa cycle route (NCN 764) at Bogside. To facilitate this, two missing links that are on FLS property need to be completed. They are a bridge over the Blutherburn to the south west of Saline and a path through Maggie Mckinlay's Wood both in the Muirside wood. See "Saline to Bogside path" map attached. How can FLS contribute to these proposals?	maintain and enhance public access across in accordance with our current policies.  https://forestryandland.gov.scot/what-we-do/communities/community-projects  We are happy to continue discussions on these proposals and would hope to work with the group to see what is achievable. As with all installations there is a future maintenance liability to consider as any assets installed require inspection, maintenance and repair resources identified to ensure everyone is meeting their duty of care responsibilities.
			Thank you for giving us the opportunity to comment and contribute.  Regards  Frank Waterworth  WFWG Treasurer	I trust this addresses the groups concerns, should you wish to discuss any of the matters further please get back in touch Best regards
Mark Fairbairn	11/02/2021	01/03/2021	Dear Forestry and Land Scotland,  I have concerns regarding the Land Management Plan for South West Fife Forests due to the sightings of pairing ospreys and sparrow hawks nest with	FLS carry out studies and surveys of the forests as part of the LMP process. We have also established a line of communication with the Tayside & Fife Raptor Study Group to allow notification of new sensitive locations and share information; though in this case we've not received any formal contact



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			fledgling in the Devilla forest. How do you plan to protect these species and their habitats/ potential nesting areas?	to date. As a matter of course, we also carry out surveys prior to operations and if any species is reported as at risk we implement the necessary mitigation appropriate to the species and nature of operation.
			I also have issues in regards to the publication of the proposal documents as they haven't been well circulated within the community or the surrounding areas. A public display board could have been place in local shops or windows with details of the proposal, where to find further information and who to contact with questions. Many people might not have access to internet or able to access the documents, but are still interested in what is happening in their local area and want to get involved.	I would like to reassure you that we have taken a number of steps to ensure that this information reaches a number of audiences. The posters were put up in the car park on the 11th February and the closure did not take place until the 1st March 2021. In addition to these posters we have;  Posted the consultation on the FLS webpage on 11th February 2021.  We advertised through both engagement and a letter drop to neighbours and local communities (notice boards) (Approx. 60 letters distributed).  The consultation was emailed to identified stakeholders, neighbours, local community groups, local activity groups and the local authority planners.  We used social media sites to target 9200 members and;



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
				Involved Community Rangers to engage with Devilla car park visitors on Mon 15th Feb 2021.
				By liaising with social media site administrators we are able to reach the relevant audiences identified by the stakeholder analysis. I am pleased that the consultation information has been able to reach you through one of the above sources.
Dawn Chapman	11/02/2021	26/03/2021	Good morning	Dear Ms Ewing,
Office of Annabelle Ewing MSP for Cowdenbeath			Annabelle has been contacted by a constituent regarding the above.  She would like to ask the question as to what assessment has been made of the impact of these proposals on biodiversity and what consideration has been given to alternative measures in order to mitigate the spread of needle blight.	Thank you for your email of 26 March 2021 on behalf of your constituent. I acknowledge your constituents concerns and would like to assure you that these points were taken into account during the consultation period and planning of Devilla Forest. The Land Management Plan meets UK Forest Standards to ensure a resilient forest. Our proposals are assessed and consulted on by the Forestry and Land Scotland Environment Advisor, Environment Ranger and our Planning Manager
			We look forward to your response in due course.  Many thanks.	who was the former Environment and Heritage Manager for this site. They take into account the issues on site and the previous management and advise given their experience and knowledge on this site and, of our management of other relevant
			Kind regards	sites. As well as this, through Scottish Forestry, these proposals have also been consulted on by



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			Dawn Chapman	NatureScot (formerly Scottish Natural Heritage), Fife Council's Biodiversity, Archaeology, Access and Planning departments, Historic Environment Scotland, and Scottish Environment Protection Agency.
				<ul> <li>To answer your questions the specific biodiversity adaptations made in this plan include:</li> <li>The expansion and protection of broadleaved habitat networks across the site.</li> <li>The protection and maintenance of habitat for protected species such as blue bells and red squirrel.</li> <li>The protection of priority open habitats such as the lowland raised bogs of Dun Moss and Lochshaw Moss.</li> <li>Dragonflies have been identified in Devilla and by maintaining the wetland and water bodies across the site these will be protected.</li> <li>Approx. 57 hectares around the red squirrel trail will now be given over to minimum intervention management to retain the existing character of the mature pinewood for as long as possible in that area.</li> <li>The plan encourages the expansion of Veteran trees, important especially for insects and as denning sites for pine marten.</li> <li>By promoting pine marten denning sites and</li> </ul>



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
				<ul> <li>keeping a mainly conifer canopy the red squirrels should have a competitive advantage over the grey squirrels that also inhabit the woodlands in this area.</li> <li>Diversification of trees species will help ensure we provide forest canopy ensuring if any one tree species is impacted by pests or disease some tree canopy survives and provides food and shelter for species such as Red squirrels and various raptors. The diversification of the tree species will provide a variety of seed sources for food, so that in anyone year there will be a food source for red squirrel.</li> </ul>
				As in the case with all forests in our care, we manage Devilla with a view to long term sustainability. With regards to consideration of alternative measures to mitigate Dothistroma Needle Blight (DNB) we are concerned that existing Scot's pine is infected. We follow the guidance as stated on Forest Research's DNB page which states "In other countries where the disease has had a significant economic impact, successful methods of control have tended to focus on fungicide treatments. However, the focus in the UK is on the use of resistant species and good stand management.



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
				This particularly includes thinning of stands of pine trees in accordance with good silvicultural practice to promote air circulation in the tree crowns. This will help to reduce humidity levels in the crowns, thereby making conditions less conducive to fungus development. Although this will not prevent infection, it can help to reduce the impact. No-thin regimes and delayed first thinning have been shown in public forests to lead to significant numbers of tree deaths."
				The good silvicultural practice described above is precisely what our plan proposes with widening of the existing mature pine canopy and continued regular thinning of stands to promote air circulation and reduced humidity. To replenish the forest we are proposing a mixture of alternative conifer species to plant underneath which, from this consultation, will now also include Scots pine as to restock purely with Scots pine would make future management of the forest unsustainable.
				I hope this answers your question and allows you to respond to your consistent. However, please do not hesitate to contact me should you require any further information regarding this area.  Yours Sincerely



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
				Carol McGinnes
Anonymous Web Consultation Respondents (23 Responses)	11/02/2021	11/02/2021-12/03/2021	Summary of responses to Google Form  1- What aspects of the South West Fife Forests Land Management Plan are you most interested in?  Recreational interest (17) Wildlife (22) Tree Species Choice (19) Landscape Impacts (13) Forestry Operations (7) Water Quality (3) Silviculture (2) Track quality (1) Planting as a means to reduce water run off (1)  2 - What do you most like about the plan, and why? I think it is important to maintain the health of the forest and the wildlife within in conjunction with allowing it to be explored and enjoyed by all Well thought out in terms of woodland management	Noted Noted



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			A commitment to increase in native broadleaves and to remove <i>R. ponticum</i> . The removal of larch is wise	Noted
			3 to 8 in your objectives	Noted
			Glad that the plan retains mature Scots pine and increases the amount of broadleaves I like that it is responsible regarding the spread of potentially fatal tree pathogens because I am very concerned about the loss of native species	Noted, we are trying to find a balance between managing plant health issues and retaining important habitat for biodiversity as well as the character of the forest
			Nothing , information too sparse to enable me to form an opinion	Noted
			the balancing of different interests I like the plan to remove the Douglas fir and Sitka spruce in Balgownie. I also like the plan to keep the birch avenue there, though I think you would keep the avenue character better if you planted broadleaf opposite rather than keeping those droopy and opaque firs	We assume you refer to the avenue of Beech we will be retaining but we agree this has character and interest worth retaining.
			The increase in broadleaves along riparian areas will be good for habitat connectivity	Noted



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			Good to see Red Squirrels and other native wildlife mentioned along with priority habitats. Great that the Red Squirrel Trail is considered an asset	Noted
			There are some elements which are positive from a wildlife and conservation perspective including maintaining a corridor of large Scots Pine trees and replanting with broadleaf woodland	Noted
			The network of different habitats	Noted
			Nothing you are going to decimate this forest.	Given the plant health threat which exists within the forest already our proposals aims to strike a balance by retaining much of the mature Scots pine over story retaining as much as we can both the habitat connectivity and character that currently exists. The plan also diversifies the forest species and structure through using mixtures to build in resilience in the forest and our management continues to be sustainable.
			That you are asking us our views.	Noted
			The wildlife management aspects, Red Squirrel habitat management and	Noted



Consultee	Date contacted	Date response	Consultee Comment/Issue Raised	Region Response
	<u> </u>	received		
			Rhododendron control.	
			The consideration given to the different types of stand management, because it's of interest to me to see the different ways in which you're proposing to manage the woodlands.	Noted
			Overall the plan seems to be good. Apart from the remediation of the forest road surfaces,, keep doing what you're already doing.	Noted
			Acknowledgement of the importance of priority habitats and habitat networks	Noted
			3 - Is there a part of the plan that you would like to see improved, if so how?	
			ResearchI would like to see some sort of experimentation area with native tree species bred to resist pathogens if that is a possibility	We have some research plots in Devilla Forest and East Grange already and other research plots specifically for pathogen resistance located within other sites managed by FLS throughout Scotland
			Access	
			Access around the forest can be restrictive due to the quality of some of the tracks.	Primary use for the track network is timber transport, so are designed for long term



Consultee	Date contacted	Date response	Consultee Comment/Issue Raised	Region Response
		received		
			These have lots of sharp stones which are not good for Wheelchair users, buggies, horses, cyclist and those who find walking a little difficult	sustainability for this purpose Timber haulage on upgraded forest roads tends to break down and smooth the track surface. The Red Squirrel trail is designed and managed as an all ability trail
			the surface is often left as type 1 material this is AWFUL as a surface for cycling on. If you're going to repair the tracks after extraction, why not finish them with whin dust, or better still, not bother with either type 1 or dust, but just use blaes, straight from a bing, as was originally done, I believe	As above also Blaes material is not sustainable in modern road design
			Bicycle trails	All trails on site are available for all users so no one is discouraged from any of the areas or trails
			little info on Recreation management	Sites will be managed in line with our current policy The aspiration to increase car parking capacity is included
			add Gaelic to finger posting in Devilla	Our sites are assessed for this based on Scottish govt. data. The location does not justify use of the Gaelic language
			Presentation of the plan	Noted - due to the significance of the proposals



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			Too many abbreviations, Presentation video too long (consider using SWAY)	given the issues faced on site and the limitations on drop in events due to COVID-19 restrictions a much more in depth explanation was considered necessary to covey the messages of the plan but we recognise that this meant the video was much longer than we would normally produce.
			Tree species selectionI don't like the move from native species. I can't see how this will benefit native wildlife and am very concerned about the habitat impact This plan shows that this is a commercial decision. Felling of native Scots Pine and	As above, The Scots pine is outside its native range and is likely not of native provenance however we do recognise its importance as habitat for important species and character  As above, if it weren't for the plant health impacts we wouldn't require to move away from Scots pine
			replacing with non-native species is not acceptable	and larch however we must manage the forests sustainably and embed resilience where we can.
			tree selection could have detrimental effect to protective animals who feed off Scots pine	Our proposals retain significant levels of Scots pine and we will now also restock using Scots pine in mixture with other species beneficial to red squirrel.
			arguments for the conversion away from Scots pine are very weak. Seems to be an argument of economics over ecology	We have valid concerns that with the evidence of DNB already in the young early 2000's Scots pine crops and the stark impact that is having on these we cannot rely solely on replanted or naturally regenerating Scots pine to replace the current



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
				mature woodland
			I don't think the species choices are correct at all. Macedonian pine and Pacific silver fir have been presented as if they are similar visually and ecologically to Scots pine, I don't think that is the case. The character and natural and landscape value of Devilla will be badly impacted by this change. I think there should be more space for broadleaf. I also think the move away from Low Impact Silviculture, even if only temporary, would have a bad impact on the recreational value of the area	The Macedonian pine is suggested to provide resemblance to Scots pine but not the Pacific silver fir, this has been suggested as it is suited to grow well onsite and provide important species and structure diversity and carbon capture. An increase of broadleaves have been proposed as part of the plan. The temporary change in silviculture is to allow more targeted and sustainable management at scale so important opportunities to thin stands are not missed otherwise. The management will predominantly retain a significant canopy of mature Scots pine.
			Biodiversity  Nowhere near enough thought given to biodiversity, particularly Red Squirrel and 'forest raptors '(pairing osprey and sparrow hawks nesting)	
			Partnership working The plan should highlight the potential for joined up working between public bodies such as Fife Council and SUSTRANS built on existing community partnerships. Most SW Fife communities have Community Action Plans that provide justifications for external	Although not specifically mentioned in the plan, FLS continue to work with strategic partners and community groups across Scotland as a matter of course. Within the SW Fife plan area there are at least three partner projects being explored or delivered currently for community/connectivity



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			funding. The plan does not address the potential for communities to raise funds for enhanced works, the problems of cutbacks in funding community support and maintenance of public access. Disabled people are effected from making use of valuable facilities.  The plan ignores the potential to join up existing forests throughout Scotland, which would improve links between communities in SW Fife and outside  4 - Please add any further comments relating to the plan here. New areas for planting to add to your	We planted 214 Ha of new woodland at East
			objective 7	Grange, Cadgerford and Muirside between 2009 and 2015 and will be planting ~ 52 Ha of new woodland at nearby Blairhouse in the next few years.
			The plan is comprehensive, responsible and is caring of endangered mammals. It looks well considered to me	Noted
			As part of the overall plan I think there should be plan to improve these surfaces by spreading a smaller shingle or similar	Notedsee previous responses



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			allowing a better surface for users	
			Good on timber, good on people, very poor on biodiversity	Notedsee previous response on Biodiversity
			You cannot guarantee that the huge amount of felling will not drive out the wild life such as red squirrels. The fact that the replacement pine will look the same is not the point, they are not native to Scotland. From your map it looks as if there is an extreme amount of felling and replanting will take years to grow by which time the whole biodiversity of the forest will be lost	There is relatively little felling/restocking proposed during the life of the plan, less than during the previous plan, so given this and the steps described previously to maintain habitat connectivity we are confident that species such as red squirrel will continue to thrive.
			This is a bias survey, if I may say so myself	We consider the form a fair and balanced method allowing contributors to describe their interests, likes and dislikes on the plan as well as anything else they wish to say.
			What measures will be taken to ensure biodiversity is maintained at ground level below tree canopies?	We will continue to thin both the mature crops and developing crops as we have been doing which has developed the forest as you see it today.
			I would like to see more consideration and thought into how profitable harvesting can be harmonious with habitat preservation and creation and therefore promote wildlife	As described above a significant mature canopy of Scots pine will be retained and given the feedback we have received from this consultation we will also now use Scots pine to restock underneath in



Consultee	Date contacted	Date response received	Consultee Comment/Issue Raised	Region Response
			and biodiversity. This plan feels like a backward step unfortunately	mixture with other site suited species.
			Now more than ever we need to be addressing the twin crises of biodiversity loss and Climate Change. This is a Scotland Government and global priority. We have an opportunity with this project to offer nature based solutions and put right our wrongs, and I do not feel this is reflected in the proposal. Conifers are non-native and offer little to the land ecology which supports life	We agree and that is why we need to ensure that Devilla's productive conifer plantation continues to remain so and the trees continue to capture carbon efficiently. The proposals in this plan balance the sustainability of the forest using alternative species in mixture with Scots pine whilst retaining a significant mature Scots pine over story.
			More focus on nature and biodiversity outcomes rather than commercial tree plantation for economic benefit. The scheme is not befitting the nature and climate emergency pursued by other Govt depts	Notedsee previous responses on climate emergency.



## Appendix IV: Devilla Maintenance Plan

See separate document



## Appendix V: Objective Appraisal, Monitoring & Evaluation

Table 11 - Objective Appraisal, Monitoring & Evaluation

Objective	Assessable Criteria	Appraisal Method	Monitoring Method	Monitor Where	Monitor When	Monitor Who	Record Monitoring Where	Evaluation. How does the Appraisal and Monitoring method inform current & future proposals? If you cannot answer this question then the methods may not be appropriate.
Manage for production of high quality soft and hardwood timber	Timber volumes	Forester Web Query against LMP	Production Forecast SPR	SRP	After operations and at appropriate intervals e.g. mid-term and 10 year reviews	Programme Manager / Harvesting Forester	Against the LMP	Monitoring the volumes and quality of timber produced and levels of income received will allow the Programme Manager & Harvesting Manager to gauge what returns might be expected from future interventions and which customers would most likely be interested. This monitoring also allows the Planning Forester to gauge the quality of conditions and whether future crops might fetch improved revenues if managed differently.
Continue to work with Patersons (who lease part of Devilla Forest to quarry for Silica Sand) to restore Sootrie Wood	Tree species & Landuse	Changes in species types, ages, proportions & distributions	Site survey SCDB Query	Onsite SCDB	After operations and at appropriate intervals e.g. mid-term and 10 year reviews	Planning Forester / Area Land Agent	Against the LMP	Monitoring the diversity of species and structure of the canopy will allow for comparisons to be made overtime which will inform the planning forester as to whether the plan is working and whether adjustments are required allowing the district to adjust expectations and business plan for alternative management methods.
Pre-emptively remove larch	Tree species	Changes in species types, ages, proportions & distributions	Site survey SCDB Query	Onsite SCDB	After operations and at appropriate intervals e.g. mid-term and 10 year reviews	Planning Forester / Programme Manager	Against the LMP	Monitoring the diversity of species and structure of the canopy will allow for comparisons to be made overtime which will inform the planning forester as to whether the plan is working and whether adjustments are required allowing the district to adjust expectations and business plan for alternative management methods.



Objective	Assessable Criteria	Appraisal Method	Monitoring Method	Monitor Where	Monitor When	Monitor Who	Record Monitoring Where	Evaluation. How does the Appraisal and Monitoring method inform current & future proposals? If you cannot answer this question then the methods may not be appropriate.
Protect and enhance forest habitat networks and priority habitats (including Preybrae Wood PAWS restoration)	Tree species & Landuse	Changes in species types, ages, proportions & distributions	Site survey SCDB Query	Onsite SCDB	After operations and at appropriate intervals e.g. mid-term and 10 year reviews	Planning Forester	Against the LMP	Monitoring the diversity of species and structure of the canopy will allow for comparisons to be made overtime which will inform the planning forester as to whether the plan is working and whether adjustments are required allowing the district to adjust expectations and business plan for alternative management methods.
Continue to control rhododendron	Vegetation	Changes in vegetation types, proportions & distributions	Site survey	Onsite	After operations and at appropriate intervals e.g. mid-term and 10 year reviews	Environment Manager	Tactical Planner	Monitoring the levels and distribution of Rhododendron will allow for comparisons to be made overtime which will inform the Environment Manager as to whether the plan is working and whether adjustments are required allowing the district to adjust expectations and business plan for alternative management methods.
Protect historical features,	Historic features	Changes in condition	Site survey	Onsite Aerial photos	At mid-term and 10 year review	Environment Manager	Forester Heritage Module	Monitoring the condition of heritage features allows the Environment Manager and Visitor Services Manager to evaluate whether implementation of the plan has adversely affected any features e.g. has increased visitor numbers increased pressure on features or have operations damaged features? Any issues can be captured and mitigated against in future.



Objective	Assessable Criteria	Appraisal Method	Monitoring Method	Monitor Where	Monitor When	Monitor Who	Record Monitoring Where	Evaluation. How does the Appraisal and Monitoring method inform current & future proposals? If you cannot answer this question then the methods may not be appropriate.
Mitigate against excessive water runoff in catchments	Run off effects	Visual reference	Site evaluation	Onsite	After operations and at appropriate intervals e.g. mid-term and 10 year reviews	Harvesting Forester / Stewardship Manager	Against the LMP	By effects of run off particularly after operations Stewardship Manager can evaluate what affect these have both within and out with our ownership and also learn where further improvements can be made and if necessary factored in to future business plans. By monitoring this and liaising with the local flood management officer FLS can evaluate if action is required and if necessary plan budgets for subsequent operations.
Maintain attractive woodlands and trails and other recreational opportunities to promote fun in the outdoors for all.	Landscape Local community opinion	Visual reference Contact lists numbers. Event & Project activity	Site evaluation Contact list check, number of events / projects progressing	Onsite Within the local community	At mid-term and 10 year review On-going engagement with local stakeholders	Landscape Architect Visitor Services Manager	Against the LMP & Site contact list	By evaluating changes in roadside corridors the landscape architect can evaluate what affect over time the development of the crop has on the motorist experience and also learn where further improvements can be made and if necessary factored in to future business plans.  By monitoring when and who we have contacted as well as what events and projects are being progressed the VS Manager can evaluate how active we have been in engaging with local community as well as being better able to plan budgets for upcoming events/projects.
Retain mature Pine character of Devilla where appropriate	Tree species & Landuse	Changes in species types, ages, proportions & distributions	Site survey SCDB Query	Onsite SCDB	After operations and at appropriate intervals e.g. mid-term and 10 year reviews	Planning Forester	Against the LMP	Monitoring the diversity of species, structure of the canopy and land use will allow for comparisons to be made overtime which will inform the planning forester as to whether the plan is working and whether adjustments are required allowing the district to adjust expectations and business plan for alternative management methods.



## Appendix VI: List of maps

The table below lists the maps which support and form part of this Land Management Plan.

- 1. Location
- 2. Soils
- 3. Climate
- 4. Existing Forest Stock
- 5. Key Feature Opportunities & Constraints
- 6. Initial Outline Draft Concept
- 7. Management Coupes
- 8. Felling Approval Areas
- 9. Silvicultural Systems
- 10. Thinning
- 11. Woodland Management in Visitor Zones
- 12. Future Habitat & Species
- 13. Restock Approval Areas
- 14. Timber Haulage Map



## Appendix VII: Scots pine DNB images



Image 1 P 2008 Scots pine (high DNB impact)



Image 2 P 2008 Scots pine (high DNB impact)



Image 3 P 2017 Macedonian Pine (low DNB impact)



Image 4 P 2017 Macedonian Pine / Serbian spruce (low DNB impact)