

## 1. Agreement and Consent

**District** West England Forest District

**Name of SSSI** Haldon Forest SSSI - SX866838  
Tower Wood Quarry SSSI - SX877857  
Buller's Hill Quarry SSSI - SX882847

**Period of Plan** January 2018 - January 2028

Phil Stocks:  
Land Management and Conservation Adviser  
South Devon Team



Date: \_\_\_\_\_

13th December 2017

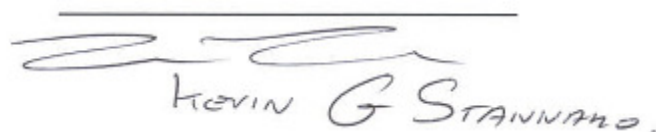
Jon Grimes:  
Lead Adviser  
South Devon Land Team



Date: \_\_\_\_\_

15th December 2017

Kevin Stannard:  
Forest Management Director  
West England Forest District



Date: \_\_\_\_\_

18th December 2017

## 2. SSSI Notification

**County** Devon

**Site Name** Haldon Forest SSSI  
Tower Wood Quarry SSSI  
Buller's Hill Quarry SSSI

**District** West England Forest District

**Status** Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

**Local Planning Authority** Devon County Council  
Teignbridge District Council

**National Grid Reference** SX866838  
SX877857  
SX882847

**Area** 1007.6 ha  
0.4 ha  
0.62 ha

**Ordnance Survey Sheet** 1:50,000: 192,191  
1:10,000: SX 88 NE/98 SW

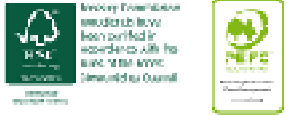
**Date Notified (Under 1981 Act)** 1992  
1989  
1989

The Forestry Commission manages 17 units of SSSI at Haldon Forest. At the time of writing all the coniferous woodland units (101,102,103,104,106,107,108,109,111,112,113 and 114) are in Favourable condition, the remainder, the lowland heathland units are in Unfavourable Recovering condition (105,110,115,116,117).

The Forestry Commission manages Tower Wood Quarry and Buller's Hill Quarry SSSI. Both quarries have one unit each designated as Favourable condition.

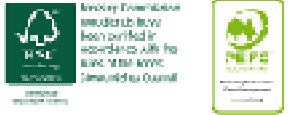
The signing of this plan by Natural England gives the necessary consent under Section 28 (6) of the Wildlife and Countryside Act (1981), as amended, for the management prescriptions detailed in this plan and to be undertaken without necessity to consult prior to each operation during the plan.

FC England will keep a written record of work carried out during the period of this plan.



### 3. Potentially Damaging Operations

Reference Number	Type of Operation
1	Cultivation, including ploughing, rotovating, harrowing, and re-seeding.
2	Changes in the grazing regime, including type of stock or intensity or seasonal pattern of grazing and cessation of grazing.
3	The introduction of stock feeding and changes in stock feeding practice.
4	The introduction of mowing or other methods of cutting vegetation and changes in the mowing or cutting regime, including cessation.
5	Application of manure, fertilisers and lime.
6	Application of pesticides, including herbicides (weed killers).
7	Dumping, spreading or discharge of any materials.
8	Burning.
9	The release into the site of any wild, feral or domestic animal, plant or seed.
10	The killing or removal of any wild animal, other than pest control.
11	The destruction, displacement, removal or cutting of any plant or plant remains, including shrub, herb, dead or decaying wood, moss, lichen, fungus, leaf-mould and turf.
12	Changes in tree and/or woodland management including afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition, cessation of management.
13a	Drainage (including use of mole, tile, tunnel or other artificial drains)
13b	Modification of the structure of watercourses (eg. streams), including their banks and beds, as by re-alignment, re-grading or dredging
13c	Management of aquatic and bank vegetation
14	The changing of water levels and tables and water utilisation, including irrigation, storage and abstraction through boreholes.
15	Infilling of ditches, ponds, pools or marshes
16a	The introduction of or subsequent changes in freshwater fishery production and/or management, including sporting fishing and angling.
20	Extraction of minerals, including topsoil and subsoil.
21	Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
22	Storage of materials
23	Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
26	Use of vehicles likely to damage or disturb features of interest.
27	Recreational or other activities likely to damage the trees and epiphytic lichens.
28	Introduction of game management and changes in game management and hunting practice.



## 4. Designated Features

### Haldon Forest SSSI

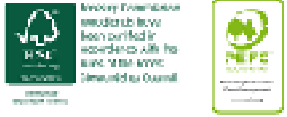
Habitat Type	Specific Designated	Description	Current Status
Dwarf Shrub Heath	H8 <i>Calluna vulgaris-Ulex gallii</i> heath	Lowland dry heath	Present across a total area of 77 hectares
	H4 <i>Ulex gallii-Agrostis curtisii</i> heath	Lowland dry heath	
	Aggregation of breeding birds: Nightjar <i>Caprimulgus europaeus</i>	3% of British population at notification. An annex 1 bird species	Present – 63 churring males during 2016 survey
Coniferous and Mixed Woodland	Rare bird feature: raptor assemblage (goshawk, sparrowhawk, hobby, kestrel and buzzard)	An exceptional assemblage of breeding raptor species	Present
	Aggregation of breeding birds: Goshawk <i>Accipiter gentilis</i>	A nationally scarce schedule 1 bird species	Present
	Aggregation of breeding birds: Honey-buzzard <i>Pernis apivorus</i>	A nationally rare Schedule 1 bird species, on Annex 1 of the Birds Directive	Has not nested on the SSSI since 1995
	Small pearl-bordered fritillary <i>Boloria selene</i>	Nationally declining priority butterfly species	Present on Kidden's powerline
	Pearl bordered-fritillary <i>Boloria</i>	Nationally declining butterfly priority	Present on Kidden's
	Wood White <i>Leptidea sinapsis</i>	Nationally declining priority butterfly	Not recorded on SSSI since 2004

### Buller's Hill Quarry

Habitat Type	Geological Features	Description	Current Status
N/A	Disused quarries and pits	GCR Block: Palaeogene This quarry is the type section for the Buller's Hill Gravel, the residual faces of the Palaeogene 'Haldon Gravel'	Exposures present

### Tower Wood Quarry SSSI

Habitat Type	Geological Features	Description	Current Status
N/A	Disused quarries and pits	GCR Block: Palaeogene This quarry is the type section for the Tower Wood Gravel, the residual faces of the Palaeogene 'Haldon Gravel'	Exposures present



## 5. Important Evaluation Criteria

### 5.1 Diversity

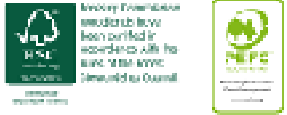
Although primarily managed as a productive conifer plantation, Haldon Forest SSSI supports a surprisingly diverse range of habitats from clearfell and early rotational conifer and mixed high forest to grazed lowland heath, acidic grassland and ponds and scrub. A network of rides, roads and powerlines provides additional interest in the form of connected open habitat and edge habitat. A varied geology and topography ranging from the flinty, acidic soils on the ridge to more fertile, damper soils at the base of the slope provides a range of important niches and conditions.

### 5.2 Rarity

Haldon Forest SSSI provides habitat for a number of designated species: goshawk, hobby, sparrowhawk, buzzard, kestrel, nightjar, small pearl-bordered fritillary and pearl bordered fritillary. Species such as the goshawk and hobby are listed on Schedule 1 of the Wildlife and Countryside Act, the nightjar is listed on Annex 2 of the Birds Directive. The butterfly species are all showing national declines, listed as species of Principal Importance (NERC 2006).

### 5.3 Intrinsic Appeal

Haldon Forest SSSI has enormous intrinsic appeal being easily accessible from the nearby city of Exeter and supporting an interesting and varied topography and incorporating stunning views over the surrounding landscape. The forest attracts a large number of people for a range of activities including walking and mountain biking.



## 6. SSSI Habitat Management Prescriptions and Factors Influencing Management

Management	Explanation	SSSI Habitat	Factor	Mitigation
Ground preparation for restocking	<p><b>Excavator preparation:</b> Use of tracked excavator to rake up brash into windrows or piles which will be left on site and allowed to rot down naturally.</p> <p><b>Scarification:</b> Use of a purpose built machine to cultivate the top 15-30cm of soil/humus. This forms raised, linear 'traces' where the trees are planted.</p> <p><b>Mulching:</b> Use of a forestry tractor or purpose-built mulcher to mulch up brash, stumps and other woody debris.</p> <p><b>Drainage operations:</b> Drains are cut to remove surface water from the site. UKFS stipulates that they should be re-profiled to 2 degrees to limit speed of run off. Sometimes old drains are cleaned and re-profiled.</p>	Conifer	Disturbance of nightjar and other ground nesting birds	<p>Ground preparation should be carried out in the autumn and winter months or immediately post harvesting.</p> <p>The nightjar breeding season (May to August) will be avoided.</p>
Pre and post planting chemical application	<p><b>Herbicide application pre planting:</b> application of glyphosate to target weeds before other ground preparation is undertaken. This operation generally focuses on bramble and bracken which can remain vigorous even after other mechanical preparation is undertaken.</p> <p><b>Herbicide application post plant spot/lane spraying:</b> Application of herbicides, most commonly, but not limited to, glyphosate to control weeds around tree after planting. In either case some ground between the trees or between the rows is left untreated.</p> <p><b>Insecticide:</b> Application of cypermethrin or acetamiprid to control Hylobius weevil. Both chemicals can be applied before planting (at the nursery) or after planting (by operators using spot guns or knapsack sprayers)</p> <p><b>Fertilisers</b> Phosphorous fertilisers are applied to young trees to provide a balanced nutrition. This is increasingly uncommon but is occasionally undertaken.</p>	Conifer and Broadleaf	Disturbance of nightjar and other ground nesting birds	<p>All chemical applications should follow the FC Operational Guidance Booklet No. 15 "Using chemicals in the Forest"</p> <p>If nightjar nests are identified during the course of the work, operators must leave a 20m buffer around the nest.</p>
Mechanical weeding and clearing	Cutting weeds to reduce competition around crop trees. A powered clearing saw, brushcutter or strimmer is used. Vegetation from around tree either as a 1.2m diameter spot or 1.2m wide swathe down planting line. The work is done at any time of the year.	Conifer and Broadleaf	Disturbance of nightjar and other ground nesting birds	<p>Checks for records of breeding bird should take place before works commence.</p> <p>If nightjar nests are identified during the course of the work, operators must leave a 20m buffer around the nest.</p>

Management	Explanation	SSSI Habitat	Factor	Mitigation
Restocking and beating up	Planting trees by hand using a spade. <b>Conifers:</b> planted at a density >2500/ha. <b>Broadleaves:</b> planted at a density <2500/ha.	Conifer and Broadleaf	Pearl-bordered Fritillary and small pearl-bordered fritillary	Forests are designed and planted in accordance with UK Forest Standard which ensures that there is adequate provision of open habitat, native broadleaves, watercourse buffer zones and species diversity.  Planting takes place between November-May.
Cleaning/ Respacing	Removal of scrub competition (e.g. gorse, birch, superfluous conifer regeneration) just before canopy closure (usually around year 4-6). The operation is usually undertaken by hand using clearing saws and chainsaws.	Conifer and Broadleaf	Disturbance of nightjar and other ground nesting birds	No work to be undertaken April mid-August.  This will avoid disturbance to nesting birds and breeding dormice.
Harvesting	Felling of trees to meet the site objectives which may include timber production, silvicultural development of the crop or conservation.  Felling is undertaken by motor-manual methods (chainsaws and winches) or purpose built timber harvesters and forwarders. Brash (branches and waste timber) is used to form a brash mat, upon which the machines travel across.  Watercourses are crossed by either using temporary log crossings or ridged pipes.	Conifer and Broadleaf	Disturbance of raptor assemblage	No work to be started from end-January to mid-August (except when safety or under statutory plant health notice_ to avoid disturbance to nesting birds, displaying raptors and breeding dormice.  Operational Site Assessments will be carried out to ensure all site constraints and opportunities have been identified
Windblow clearance	Felling trees using chainsaws and winches or purpose built harvesting machinery.	Conifer	Disturbance of raptor assemblage and other schedule 1 breeding birds	Windblow clearance should be undertaken between mid-August and February unless it is posing a risk to public health and safety.  Pockets of suitable raptor nesting trees that have not been subjected to windblow should be retained unless they are at risk from further windblow.
Road/ride/open habitat flailing	Cutting back of vegetation such as bracken, bramble, scrub, grass from open habitat/road /ride side using a tractor mounted rotary mower/topper or side-arm flail.  Cutting of hedges using a tractor mounted side-arm flail.	Conifer and Broadleaf/Lowland heathland	Disturbance of nightjar and other ground nesting birds  Pearl-bordered Fritillary and small pearl-bordered fritillary	No cutting of grass rides and butterfly habitat between May and mid-August.  No hedge cutting to be undertaken between 1st March and 31st August.  Operational Site Assessments will be carried out to ensure all site constraints and opportunities have been identified

Management	Explanation	SSSI Habitat	Factor	Mitigation
Road/ride reparation	<p>Using civil engineering machinery to scrape surface vegetation from roads; re-profile roadside drains; and repair the surface of the road by laying new stone and rolling.</p> <p>Can also include blading and widening of existing tracks, and the installation of extraction ramps at rack-ends.</p> <p>Surface vegetation is piled adjacent to roads in small (&lt;80cm high) piles.</p>	Conifer and Broadleaf/ Lowland heathland interface	Pearl-bordered Fritillary and small pearl-bordered fritillary	<p>Undertaken throughout year but install exclusion zones around all known raptor nests to prevent disturbance.</p> <p>Where birds have chosen to nest in busier parts of the site (e.g. near to the main visitor carpark), these exclusion zones may be significantly reduced.</p> <p>Provisional safe working distances as published in "Forests and Birds: A guide to Managing Forests for Rare Birds" should be adhered to. (NB—where guidance doesn't cover all species—seek advice of Wildlife Ranger)</p> <p>Operational Site Assessments will be carried out to ensure all site constraints and opportunities have been identified</p>
Rhododendron clearance	<p>Mature rhododendron bushes are cut down using chainsaws or mulchers.</p> <p>Regrowth of these plants, along with smaller seedlings are treated with glyphosate and Mixture B NF through a knapsack sprayer. This spraying often needs to be undertaken several times to kill the extensive root network of mature plants.</p>	Conifer, Broadleaf and Lowland heathland	<p>Disturbance of raptor assemblage</p> <p>Disturbance of nightjar and other ground nesting birds</p>	<p>Chainsaw cutting is undertaken at any time of year. Mulching is avoided during the period April-mid-August.</p> <p>All chemical applications should follow the FC Operational Guidance Booklet No. 15 "Using chemicals in the Forest" Spraying is undertaken March-November.</p> <p>Exclusion zones are applied around known raptor nests although the published figures may be reduced for low key spraying operations. Bird and dormouse breeding seasons are avoided when mulching.</p>
Tree Safety Work	<p>Undertake regular tree safety inspections commensurate with the level of public use around them.</p> <p>Carry out remedial work on trees to reduce safety risks. Such work can range from removing deadwood, pruning or felling. Work is undertaken by arborists or FC ground teams using chainsaws. Access is usually gained by rope and harness or Mobile Elevated Platform (MEWP).</p>	Broadleaf	Disturbance of raptor assemblage	<p>Staff are trained and the remedial work is only undertaken where absolutely necessary. Arborists will take note of potential bat roosts /bird nests and if occupied, work will be suspended and specialists engaged.</p> <p>Work is undertaken throughout the year, although exclusion zones around known Schedule 1 bird nests will be installed.</p> <p>Opportunities will be utilised to retain an assortment of quality deadwood of different sizes and at different densities , standing deadwood will be retained in-situ where it is safe to do so.</p>

<b>Management</b>	<b>Explanation</b>	<b>SSSI Habitat</b>	<b>Factor</b>	<b>Mitigation</b>
Deer control	Shooting deer by trained marksman using a rifle to protect forestry crops, natural regeneration and PAWS and ASNW features.	Conifer and Broadleaf	Disturbance of raptor assemblage	Shooting will not take place in the proximity of raptor nests during the breeding season.
Provision of recreation trails and associated maintenance	<p>Haldon Forest Park attracts 300,000 visitors per year who come to enjoy the walking and cycling trails. Much of the trail network is already installed but further alterations and some additional routes may be provided over the coming years.</p> <p>The trail surface is stoned, and is maintained in a similar way to forest roads, (see above) albeit using smaller machinery.</p> <p>Vegetation is cut back from the routes regularly during the summer months.</p>	Conifer, Broadleaf and Lowland heathland	<p>Disturbance of raptor assemblage</p> <p>Pearl-bordered Fritillary and small pearl-bordered fritillary</p>	<p>Any new trails will be subject of discussion between FC and NE at the planning stage.</p> <p>Trail maintenance generally occurs in high disturbance areas and as such there are no proposals to limit the timings of these operations.</p>
Recreation Events	A number of recreation events are held throughout the year. Event organisers are required to apply for a permit from the FC.	Conifer, Broadleaf and Lowland heathland	<p>Disturbance of raptor assemblage</p> <p>Disturbance of nightjar and other ground nesting birds</p>	<p>FC staff can consult/comment on permits.</p> <p>Any events planned for within the bird breeding season will be assessed for their likelihood of disturbance and re-routed if necessary</p>
European Protected Species	All woodland management / recreational operations and events that take place within the vicinity of EPS (great-crested newt, dormouse, bats and otter)	Conifer, Broadleaf and Lowland heathland	EPS	<p>All operations that could potentially injure or kill a EPS or disturb, damage or destroy a breeding or resting place must comply with the most up to date guidance on managing woodlands supporting these species.</p> <p>All felling and restocking associated operations should be recorded during the Operational Site Assessment and Natural England licences sought if guidance cannot be followed.</p>
Brash burning	Brash from the clear-felled conifer crop will be heaped and burned to facilitate heathland restoration, for public amenity or to maintain site productivity.	Lowland Heathland	Disturbance of nightjar and other ground nesting birds	<p>An EA license will be sought.</p> <p>FC best practice will be followed, taking particular care to ensure the correct weather conditions.</p>



Management	Explanation	SSSI Habitat	Factor	Mitigation
Heathland and Butterfly Habitat scrub control	<p>Birch and conifer regeneration on lowland heathland areas will be removed with clearing saws and chainsaws.</p> <p>Herbicide (glyphosate) and propyzamide is sometimes applied to stumps or to coppice regrowth.</p>	Lowland Heathland	Disturbance of nightjar and other ground nesting birds	<p>Scrub cutting is undertaken in the period September-March in a bid to avoid bird nesting season. Glyphosate and propyzamide application is undertaken throughout the year.</p> <p>Care is taken to minimise herbicide drift onto heathland flora, however some drift is inevitable and within reason this can help to break up dense heather, gorse or purple moor grass.</p>
Burning	Burning will be carried to maintain the open nature of lowland heathland units as a more sustainable alternative to continual cutting and herbicide application.	Lowland Heathland	Disturbance of nightjar and other ground nesting birds	<p>Burning will comply with The Heather and Grass etc. Burning (England) Regulations 2007 and Natural England Burning Code &amp; the guidelines for burning lowland heathland.</p> <p>FC beat practice will be followed, including the daring up of need for burning plans taking particular care to ensure the correct weather conditions.</p>
Bracken management	<p>Bracken will be managed using a combination of methods including cutting using a tractor mounted rotary mower/topper or side-arm flail or A tractor mounted roller.</p> <p>On the Kidden's powerline, aim of bracken management is to break up the bracken during early spring to ensure gaps in canopy allow for the germination of violets.</p> <p><b>Herbicide application :</b> Application of herbicides, most commonly, but not limited to, glyphosate to control bracken will be carried out by operators using spot guns or knapsack sprayers.</p>	Lowland Heathland and Kidden's Powerline	<p>Disturbance of nightjar and other ground nesting birds</p> <p>Pearl-bordered Fritillary and small pearl-bordered fritillary</p>	<p>Bracken cutting should take place in late May or early June in small areas 0.5 – 1 hectare.</p> <p>Glyphosate application is undertaken throughout the year. Care is taken to minimise herbicide drift onto other flora, however some drift is inevitable.</p> <p>Operational Assessments will be carried out, where undertaken by machine, to ensure all site constraints and opportunities have been identified.</p>
Scraping/disturbing accumulated leaf/needle	<p>Remove the litter up to 10cm using an 360 excavator to remove nutrients and allow for restoration of dwarf shrub heathland, but ensure that the surface of the mineral soil receives minimal damage. Where the litter is less than 5cm, disturb the litter layer to stimulate germination of the seed bank</p> <p>In well-established heath bare ground can be created where otherwise no bare ground would otherwise be present.</p> <p>Arisings will be removed and carefully landscaped to ensure they provide habitat for a range of invertebrates and reptiles and are visually acceptable .</p>	Lowland Heathland	Disturbance of nightjar, and other ground nesting birds and great crested newts	<p>Scraping should be carried out in the autumn and winter months to avoid disturbance to ground nesting birds.</p> <p>Operational Site Assessments will be carried out to ensure all site constraints and opportunities have been identified</p>

