Forestry Commission England

New Forest Inclosures

Open Habitat Proposals 2018

Environmental Statement

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Non-Technical Summary

Project Description

The deforestation under consideration sits within the New Forest Inclosures Forest Plan which was submitted to Forest Services for approval in April 2017.

The proposed project [herein known as 'the proposal'] involves the deforestation of 464 hectares of conifer plantation within the New Forest Inclosures during the 10 year Plan period (2018 – 2028).

The New Forest is internationally renowned as a historic landscape comprising an intimate mosaic of woodland and open habitats which has survived from when it was first designated as a hunting forest by William the Conqueror.

Through the centuries the woods and open habitats have been managed in diverse ways but primarily with open grazing.

The Forestry Commission manages some 24,000 hectares of this landscape. Approximately 8,500 hectares are within the Inclosures, with the remainder known as the 'Open Forest'. The Open Forest is managed primarily for nature conservation and the maintenance of internationally important habitats.

The Inclosures of the New Forest are those areas where the management of trees for timber production is permitted under the New Forest Acts. The process of enclosing open land for timber production in the New Forest began in the 1700s. This has been extended by various Acts of Parliament over the intervening 300 years with the most recent Inclosures dating from the 1960s. These more recent, 20th century Inclosures are known as the Verderers' Inclosures. They were planted as a strategic conifer timber reserve following the two World Wars on previously open land which was leased from the Verderers' of the New Forest.

Over the course of time, the Forestry Commission's management objectives within the New Forest have evolved along with the societal responsibility to nature conservation and the provision of accessible natural spaces for people's enjoyment, health and wellbeing. This is also reflected in the Minister's Mandate for the New Forest which provides a hierarchy of outcomes for management of the New Forest. Whereas the wider Public Forest Estate (PFE) is managed to balance outcomes for people, nature and the economy, the Minister's Mandate tells us that management objectives of the Crown Lands of the New Forest should be in the order of nature, people and economy, giving

clear direction that decisions should be made to advance the nature conservation features as a priority.

The deforestation is proposed in order to restore degraded heathland habitats within the New Forest Special Area of Conservation (SAC), Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI).

The 464 hectares is spread across the approximately 24,000 hectare landscape (8,500 ha of which are the Inclosures) and divided into 114 individual units with an average area of 4 hectares. A location map of these areas can be found in Appendix a.
The main objective of the proposal is to enable the Forestry Commission's to undertake it statutory obligations to maintain and restore designated landscapes

The areas identified for this change currently consist of conifer plantation which is not a qualifying or notified feature of the SAC or SSSI. We are therefore required to identify how these areas may be developed to best support the special features of the New Forest.

To give further context, this proposal sits within a longer term aspiration to revert plantations on former heathland sites to open habitats. This process was begun in 1999 within the New Forest New Futures Forest Design Plan, continued within the 2006 review of the Inclosures Forest Design Plan, further continued here and, it is likely that approval for some further reversion to open habitat would be proposed in future iterations of the Inclosures Forest Plan.

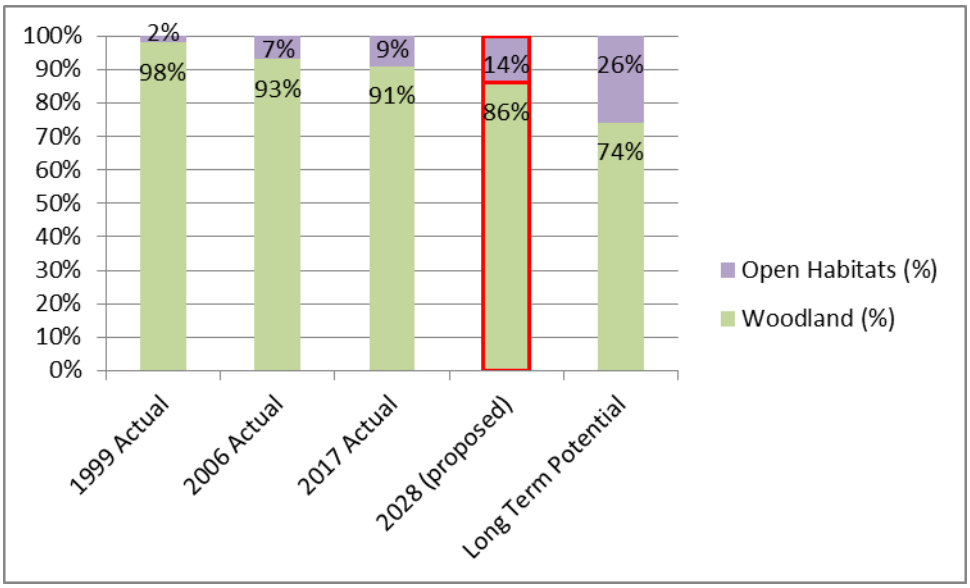


Table 1: Open Habitat reversion since 1999 as a percentage of Inclosures area.

As proposers of the project we are required to produce an Environmental Statement which outlines the key impacts, both positive and negative. To help identify the key impacts to focus on in the Environmental Statement we held a Scoping Meeting with key stakeholders on 16th January 2018.

Engagement

Extensive stakeholder engagement and research has been carried out involving partners, government organisations and local communities. This has included public meetings and one to one visits. The proposals have also been developed with the support of extensive data sets and input from a range of experts.

Policy Context

The deforestation proposals are part of the New Forest Inclosures Forest Design Plan (NF FDP). This Plan covers approximately 8,500 hectares within the 24,000 hectares of New Forest landscape managed by Forest Enterprise England.

The entirety of the management area is subject to nature conservation designations (SAC, SAP, SSSI). As such, the features recognised by these designations are protected under EU and UK legislation.

The NF FDP states objectives in line with the Strategic Plan for the Public Forest Estate in England, to manage its land to deliver benefits to nature, people and the economy.

The New Forest benefits from a clarity of hierarchy of these benefits through the Minister's Mandate (DEFRA, 1998, 2006) which states that conservation of the natural and cultural heritage are the principal objectives of management of the New Forest.

The proposed areas also lie within the New Forest National Park, as such we work in partnership with the New Forest National Park Authority to progress their purpose:

- To conserve and enhance the natural beauty, wildlife and cultural heritage of the area
- To promote opportunities for the understanding and enjoyment of the special qualities of the Park by the public.

The proposal is also consistent with the Government's Open Habitats Policy (*When to convert woods and forests to open habitat in England: Government Policy* – March 2010)

The UK Government's 2017 25 Year Environment Plan identifies key outcomes which this proposal aims to support, including:

- restoring 75% of our one million hectares of terrestrial and freshwater protected sites to favourable condition, securing their wildlife value for the long term

There are further outcomes which are considered within this Environmental Statement due to the potential impact the proposals may have:

- making sure that decisions on land use, including development, reflect the level of current and future flood risk (see Soil and Water section);

- improving our approach to soil management: by 2030 we want all of England's soils to be managed sustainably, and we will use natural capital thinking to develop appropriate soil metrics and management approaches (see Soil and Water section);

- increasing timber supplies (see Human Being section);

- safeguarding and enhancing the beauty of our natural scenery and improving its environmental value while being sensitive to considerations of its heritage (see Landscape section);

- making sure that all policies, programmes and investment decisions take into account the possible extent of climate change this century (see climate section)

Summary

These proposals sit within the wider New Forest Inclosures Forest Design Plan (FDP). This Plan, developed with extensive stakeholder consultation, proposes the restoration and maintenance of the habitats and associated species as protected under the statutory designations of the New Forest.

Open habitat restoration forms an important part of this FDP, progressing the extension of open habitats such as wet and dry heathlands for species including birds and reptiles.

The impacts of implementing these proposals are to be examined through the Environmental Impacts Assessment (EIA) process under the EIA (Forestry) Regulations, administered by Forest Services (FS).

In December 2017, FS offered their formal Opinion that the proposals represent a relevant project under these regulations and therefore require FS Consent.

Following this Opinion, a Scoping meeting was held with key stakeholders to help determine the relevant factors to be examined through an Environmental Statement (ES). This document is the ES, forming part of the proposal's application for Consent. A Scoping Report has been produced which details the specific aspects to be considered within this ES.

The relevant factors are detailed in sections throughout this document. Below is a summary of the impacts and proposed mitigation measures.

Potential Impact of the proposal	**Initial Impact Level**	**Mitigation Measures**	**Impact Level following Mitigation**
Methods of post-deforestation maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps as well as grazing access and fence realignments	High Inappropriate decisions regarding fence realignment and management of residual forestry infrastructure could severely limit the success of open habitat restoration	• An agreement has been reached between partners which details the approach to be taken when agreeing fence line changes. • Exploration of future partnership projects to support forestry infrastructure restoration to support higher quality open habitat restoration	Low
Impact aquatic life	Medium	Identify sites of protected aquatic and wetland habitats and species, including spawning areas, and ensure protective buffer areas are established; liaison with EA during site planning of	Low

		operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	
Reduced shading leading to increased water temperatures	Low	Liaison with EA during site planning of operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	Low
The effects of post-deforestation methods of restoration and maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps	Medium	Liaison with EA during site planning of operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	Low
The effects on local landscape character and opportunities for retention of localised, characterful 'clumps'	Medium	Site specific identification of native species clumps and small groups of scots pine which would suit the local landscape character and reduce the immediate impact of the change. To become part of the operational planning process. Education and	Low

		community engagement about the reasons behind the change and the naturalised, locally and internationally renowned landscape that is being restored.	
The effects on carbon sequestration (potential further resoration methods, such as destumping, soil reprofiling)	High	Methodology of carbon sequestration impacts will be developed as part of the decision making for habitat restoration after the trees have been removed.	Low

1. Introduction

This Environmental Statement will outline the significant impacts and proposed mitigation measures of 464 hectares of deforestation proposed within the New Forest Inclosures Forest Plan 2018.

1.1. Forest Enterprise England

Forest Enterprise England (FEE) is the freehold owner or responsible leasehold manager of the areas concerned.

FEE manages the nation's forest estate, providing environmental, social and economic benefits from them.

FS are the statutory agency responsible for regulation of forestry within the UK, including administration of the Forestry Act and the Environmental Impact Assessment (Forestry) Regulations 1999

1.2. Background to the Project

The Crown Lands of the New Forest, within which sit the Inclosures to which this proposal relates, is, in its entirety, designated as Site of Special Scientific Interest (SSSI), Special Area for Conservation (SAC) and Special Protection Area (SPA).

The Inclosures are monitored by Natural England in terms of their SSSI condition. In line with the responsibilities of Forest Enterprise, the Forest Plan proposes the maintenance and restoration of notified and qualifying habitats within the Inclosures. Broadly, these include open habitats, bog woodland and pasture woodlands.

As part of the proposals within the New Forest Inclosures Forest Plan 2018, 464 hectares of open habitat restoration has been identified.

This restoration would require the permanent removal of woodland habitats. As such, this project requires consideration under the Environmental Impact Assessment (EIA) (Forestry) Regulations.

FS, the competent authority and regulatory body responsible for administering these regulations have determined that this proposal is a relevant project under these regulations and therefore requires Consent. An ES is therefore required in order to apply for that Consent.

See EIA Map 1 – 10 Year Felling Areas for an overview of the location of proposed areas.

1.3. The Environmental Impact Assessment (EIA) Regulations

The EIA (Forestry) Regulations implement European legislation and ensure that the environmental impact of deforestation, afforestation and the creation of forest roads and/or forest quarries projects are assessed before work is allowed to start. The Forestry Commission (FC) is the designated competent authority under this legislation, the duties associated with which are carried out by the regulatory arm of the Commission – Forest Services.

The FC's first task is to provide an *Opinion* as to whether the proposals represent a relevant project i.e. whether they will have a significant impact on the environment.

The thresholds outlined below provide a guide as to whether a project is likely to have a significant impact on the environment or not.

Table 1: Thresholds to identify projects requiring EIA Opinion

Proposal	Thresholds if ANY PART of the proposal is in a sensitive area	Threshold where NO PART of the proposal is in a sensitive area
Deforestation	0.5 hectares where the land or part of the land is within a National park or AONB only. All projects within other sensitive areas e.g. SSSI are screened	1 hectare

The FC is of the Opinion that these proposals are considered significant, requiring consent under the terms of the Environmental Impact Assessment (Forestry) (England and Wales) Regulations 1999.

The Regulations require that any application for *Consent* must be accompanied by an Environmental Statement (ES). The ES must objectively analyse the range and priority of issues that have been identified through '*Scoping*' (carried out at a scoping meeting). When the ES is available the FC will formally consult stakeholders. The ES and the responses from consultation will provide the FC with the information needed to make the *Determination*.

The Opinion Letter is found in Appendix 1.

1.4. Scope of the Environmental Statement

Following the Opinion Letter from FS, on 16th January 2018 FEE hosted a scoping meeting with a number of organisations, individuals and agencies. This scoping meeting had the objective of identifying the key environmental constraints and opportunities to be addressed within the ES. The agenda for the meeting and a list of invitees and attendees can be found in the Scoping report, Appendix 2.

In addition, the New Forest National Park Authority submitted a response to FS by email.

During consultation and EIA Scoping the following environmental issues were raised which will be further explored within the ES.

EIA Consideration Area	**Aspects for Consideration**
Human Beings (People & Recreation)	• The effects on direct and indirect employment with consideration given to the Growth Duty • the effects of people upon the restored open habitats
Flora & Fauna	• Methods of post-deforestation maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps as well as grazing access and fence realignments • The effects on deer populations, health and wellbeing • The effects on incumbent habitats and species
Soil & Water	• The effects of post-deforestation methods of restoration and maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps
Climate	• The effects on carbon sequestration • The effects on air quality
Landscape	• The effects on local landscape character and opportunities for retention of localised, characterful 'clumps'
Archaeological & Cultural Heritage	• The effects of implementation methods on historic features and heritage value • The consideration of New Forest conifer

	silviculture as a heritage asset in itself
Interaction between the above	• Implementation considerations – The Operational Planning Process • Monitoring and remedial action • The effects on the resilience of New Forest habitats • The effects on wildfire risk • Opportunities for fluidity and connectivity of habitats

2. The Project

2.1. Locations

The deforestation proposals are located across the Plan area, see EIA Map 1 – 10 Year Felling Areas. All are located within the New Forest Inclosures which sit within the New Forest Crown Lands, New Forest SAC, SPA and SSSI area as well as the New Forest National Park.

2.2. Soils and Geology

'Geomorphologically the Forest comprises a series of eroded terraces capped with flint gravel, brickearth and other superficial deposits. The terraces are highest and most fragmented by erosion in the north and lowest and most complete in the south. Erosion has exposed the underlying Tertiary strata, in wide valleys and hollows separating the terraces. Soils are mainly acid, poor in nutrients, susceptible to leaching and only slowly permeable.' (SSSI Citation, 1996)

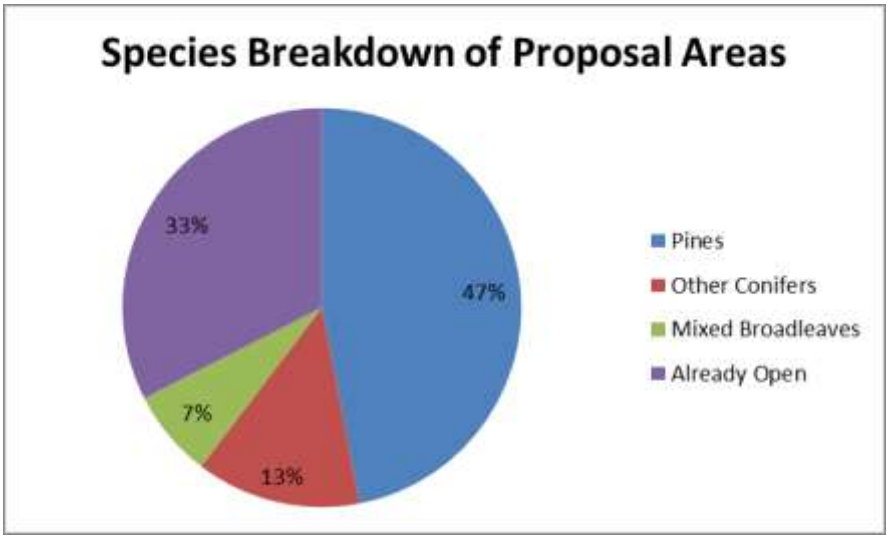
2.3. Existing Land Use

All areas within this proposal are currently managed in line with the objectives of the Public Forest Estate in England, to provide multiple benefits to nature, people and the economy. This is currently within a context of woodland management (plantation forestry).

Some areas are currently subject to grazing as part of the grazed landscape of the New Forest.

While being subject to plantation forestry management since planting, the areas have existing open habitat associated flora such as heather and molinia.

2.4. Existing Tree Species



Source: FEE Sub-Compartment Database, March 2018

2.5. Landscape Character

From the New Forest Natural Character Area Profile:

The core of the New Forest is a mixture of extensive, open rolling heaths and valley mires, inclosures of broadleaf and coniferous plantation woodland, and large tracts of unenclosed ancient semi-natural mature oak and beech wood pasture.

Free-roaming commoners' stock – donkeys, mules, ponies, cattle, pigs and sheep – which graze, and are responsible for the persistence of, this ancient landscape, are a common visual characteristic, particularly along roadsides and on the close-cropped verges, lawns and commons which run through some of the forest settlements.

Distant skyline views from the eastern heaths of the chimneys, cranes and structures of the oil refinery, power station, incinerator and docks of Southampton Water.

The constant, visible and very audible, impact from traffic on the A31 (bisecting the forest), the A36 (forming the north-eastern boundary of the

National Park), and other main roads connecting the main settlements and crossing open heaths. More intermittently, planes from Bournemouth and Southampton airports add to the disturbance of tranquillity.
As a common, and now enshrined in open access legislation, the core of the New Forest has largely unrestricted public access over the whole area. The Crown lands also have an historic right of access on foot and horse.

The majority of the NCA is an elevated plateau, rising to 120 m, on the western flank of the Hampshire Basin, sloping gently south to the Solent coast, with a steep, partially wooded escarpment marking its western edge. Beyond this, to the west, is the clearly defined flat-bottomed valley of the Hampshire Avon.

The core of the area is a landscape of contrasts, arising from its unique combination of heaths and valley mires, patches of gorse, bracken, birch and pine, inclosures of broadleaf and coniferous woodland, and large tracts of unenclosed, ancient semi-natural mature oak and beech wood pasture. To the north of the A31 trunk road landforms are dramatically open, with extensive heaths, cut by steeply eroded valleys, and clearly defined blocks of plantations.
South of the A31 the landscape is more verdant with open lawns, commons, larger areas of semi-natural woodland and wood pasture as well as large areas of heath and inclosures. The majority of this core area is open access land.

There is a strong sense of history throughout, expressed through the continuity of open woodland and heath, grading gently into each other, and the influence of the ever-present grazing animals. Ponies and cattle graze road verges and commons, small herds of pigs feed off the woodland floor and deer are seen moving through woods or across heaths. The impact of grazing is a constant, visible through the close-cropped swards and lawns, tightly nibbled clumps of gorse and the browse line of trees and hedgerows.

The main drainage pattern of the plateau is dominated by the Lymington River, Beaulieu River and Avon Water which drain south directly to the West Solent.
To the north-east the River Blackwater and Bartley Water drain east to the River Test, and in the north and west several ecologically important streams drain directly off the western escarpment to the Hampshire Avon which flows south to Christchurch Harbour. Although the Avon is a major river, marking the western edge of the area, the majority of its catchment and source falls within the chalk downs of north Hampshire and Wiltshire outside this NCA.
This is a valuable water resource for the south-east Dorset and Bournemouth conurbations. Apart from some agricultural and forestry drainage channels, and flow management structures in the Avon Valley, the watercourses of this landscape generally follow their natural courses.

The core of the NCA is the largest area of unsown vegetation in lowland England and includes, on a large scale, habitat formations formerly common but now fragmented and rare in lowland western Europe. They include lowland heath, valley and seepage step mire, or fen, and ancient pasture woodland, including riparian and bog woodland. Nowhere else do these habitats occur in combination and on so large a scale. It is also one of the last remaining extensive systems of common rights and pastoral farming in lowland Europe. These factors are inextricably linked and the grazing of commoners' stock is critical to the shaping of the landscape and the habitats and species represented.

It is recognised as one of the most important areas of protected habitat in Europe. The majority of the open forest, the Avon Valley and the coast, from Hurst Spit to the lower Test, are designated as either Special Areas of Conservation (SAC) or Special Protection Areas (SPA), and in many cases both. The New Forest Site of Special Scientific Interest (SSSI), covering nearly 29,000 ha, is almost coterminous with the New Forest SAC and SPA, is the second largest SSSI in England, and 20 further SSSI are designated across the area. The streams, ponds, wet heaths and woodlands are also recognised under the Ramsar convention for their assemblages of rare and scarce wetland plants and invertebrates.

The designated habitats of the New Forest SAC are the oligotrophic standing waters, lowland wet and dry heaths, valley mires, bogs and fens, Molinia meadows (lawns) and the beech, oak, bog and alluvial woodlands. Designated SAC species are the southern damselfly, great crested newt and stag beetle. The New Forest SPA is designated because of breeding populations of nightjar, woodlark, wood and Dartford warbler, honey buzzard and hobby, and wintering hen harrier. These two Natura 2000 designations cover similar areas.

2.6. Project Aims and Objectives

This project is proposed as part of the New Forest Inclosures FDP 2018. The stated objectives of this Plan, which it is proposed would be advanced by this project are listed below.

1. **Develop Natural habitats of better quality and greater resilience, including planning for changes to the natural environment by:**

· Maintain or restore the extent and distribution of designated habitats and species;
· Maintain or restore the structure and function of designated habitats and the habitats of designated species;
· Maintain or restore the supporting processes on which designated habitats and the habitats of designated species rely;
· Restoring native woodland and open habitats;

· Developing a network of habitat links to reduce the vulnerability of fragmented sites;
· Increasing the connectivity of the variety of woodland and open habitats within and through the Inclosures.

2. Develop woodlands that are sympathetic to the wider landscape and enhance the natural landscapes for public appreciation and enjoyment by:

· Where appropriate, implementing changes to the landscape over a long time period (e.g. 200 years)

2.7. Project Scenarios

Deforestation of these areas has been proposed as the preferred method of achieving those outcomes set out above within these specific locations.

Alternative scenarios considered as potential ways of securing the objectives without the loss of woodland are:

a) Maintaining conifer plantations into the future, i.e. the status quo;
b) Reversion to open habitat;
c) Conversion of the conifer plantation to native woodland;
d) Do nothing.

2.8. Assessment of Scenarios

Scenario Reference	Positive Outcomes	Negative Outcomes	Will this approach meet the FDP objectives?
a	• No long term landscape impact; • No reduction in productive (timber) forest area;	• No improvement SSSI condition; • Designated habitats and species not prioritised as per Minister's Mandate	No.
b	• Designated habitats restored in relatively short timescale. • Timber value realised through clear felling. • Tree removal will limit seedling growth over time.	• Short term landscape impact. • Reduction in timber producing area.	Yes
c	• Maintenance of net woodland cover	• Potential degradation to SAC/SSSI open habitats through succession to native woodland as well as opportunities not taken to support increased habitat area for SPA designated bird species.	No.
d	• Extensive deadwood habitat developed as existing trees decay. • No short term landscape impacts.	• Financial costs associated with seedling removal will be required for an undetermined timescale. • Timber value will not be realised.	Yes

2.9. Preferred Option

Given the analysis above the preferred option, which allows FEE to advance its objectives in the most effective and efficient way is option b), conversion of the proposed plantations to open habitats through tree removal of the proposed areas (deforestation).

3. Human Beings (People and Recreation)

3.1. Relevant Scoping Issues

Relevant Scoping Issues
• The effects on direct and indirect employment with consideration given to the Growth Duty • The effects of people upon the restored open habitats.

During scoping it was identified that although the New Forest is an incredibly important area of open, accessible natural space for local populations and tourists alike, hosting around 12.5 million day visits per year. The impact upon this tourism resource was not considered to be critical.

The potential impact on employment within the wood processing sector was of most concern with the potential impact being a reduction in employment due to the decreased timber production area of the New Forest.

3.2. The effects on employment

FEE currently employs approximately 150 full time equivalent (FTE) posts within the South England Forest District. This complement includes management, operational and administrative staff supporting the management of the Public Forest Estate in this area for benefits to people, nature and the economy.

The areas included within this proposal will become part of the Open Forest habitats of the New Forest. These areas are managed by our Open Forest team which currently accounts for around 7 FTE staff. This proposal will increase the area managed by this team by around 2.5%.

With regards to roles directly employed in the management of trees for timber production, this would equate to 4 FTE FEE staff across South Forest District. The area of deforestation proposed (464 hectares) accounts for around 2% of the timber producing area (~24,000 hectares) of South Forest District.

Availability of timber resource for processing industries also has the potential to impact upon employment within the wider forestry sector locally. In order to assess this impact, we have researched the impact of this deforestation upon the softwood availability at various scales. The table below gives the timber (softwood) production of the proposed

areas within the context of wider softwood availability both locally and nationally. It can be seen that the impact, in the context of softwood availability from the woodland resource as a whole (Forest Enterprise and private sector) is minimal.

	2017 - 2021				
	PFE softwood availability (average m^3 per year)	Proposal area softwood volume as % of PFE totals	Private Sector softwood availability	Total softwood availability (ave m^3 per year) (PFE & Private Sector)	Proposal area volume as % of total
Nationally (England)	1,263,000[1]	0.7%	3,284,000[1]	4,547,000	0.18%
Regional (South East & London)	79,000[1]	10%	602,000[1]	681,000	1.2%
Locally (within 25 miles of Southampton)	70,000	12%	169,000	239,000	3.4%
Proposal Area	8,000[2]			8,000[2]	
Figures are m^3 over bark standing, softwood average availability per year. Source: 1: Forestry Commission Statistics; 2: South Forest District					

In order to provide a degree of consistency and stability to its timber customers, Forest Enterprise aims to produce consistent levels of production year on year. A such, through our operational planning, there would be no planned spike of timber production as a result of this proposal. The timber produced from this proposal would be profiled evenly over the course of the 10 year Plan, hence the average volume figure of 8000m^3 per year resulting from this proposal in the table above.

This assessment also supports the regulator's (FS) ability to fulfil the requirement within the Growth Duty (https://www.gov.uk/government/publications/growth-duty) for government agencies to consider the impacts on the economy when making regulatory decisions.

3.3. The effects of people upon the restored open habitats

With millions of day visitors making use of the New Forest's open, accessible landscape every year, Forest Enterprise has great experience in managing people's use within this sensitive landscape.

The existing tracks allow people to access the open areas as well as the woodlands on foot or along the cycle route network with minimal incursion across the 'wild' spaces.

Through the Forest Enterprise recreation rangers, along with liaison and partnerships with other agencies such as the New Forest National Park Authority, education of the public about responsible use and behaviour around these sensitive sites is ongoing. Information signs at specific sites and times such as during ground nesting bird season also help to reduce disturbance.

The additional open space created by this proposal is not likely to increase the threat posed by visitors to the New Forest.

3.4. Assessment of Impacts on Human Beings (People and Recreation) Features and Mitigation Measures

The impacts of the proposals upon employment within the timber processing sector can be looked upon within the context set out above, which suggests the deforestation proposals will have a negligible effect on softwood availability within the southeast and London areas and across England.

FEE continues to manage its estate for the multiple benefits to people, nature and the economy. As our landscapes change over time as a result of policy implementation, further opportunities for employment may arise in areas such as recreation management and the protection and enhancement of key habitats and species.

Potential Impact	**Initial Impact Rating**	**Mitigation Proposed**	**Resulting Impact Rating**
The effects on employment with consideration given to the Growth Duty responsibilities	Low	No additional mitigation proposed	Low
The effects of people upon the restored open habitats	Low	Continued liaison and engagement with local communities, partners and the tourism sector to educate the public	Low

		about responsible behaviour around sensitive sites	

4. Flora and Fauna

Relevant issues raised during Scoping:

- Methods of post-deforestation maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps as well as grazing access and fence realignments
- The effects on deer populations, health and wellbeing
- The effects on incumbent habitats and species

4.1. The effects of habitat restoration methods

Following the removal of the trees, a number of factors relating to the way in which the open habitats are restored and maintained may have an impact. Once the main canopy trees have been remove it is possible that a seed bank for conifer trees will lead to seedlings naturally regenerating, limiting the success of the open habitat restoration.

The restored open habitats will become part of the existing grazed landscape of the New Forest. As such, they will be subject to the established management practices, as detailed below, which maintain this world class landscape in recovering and favourable SSSI condition. The main methods used to maintain this open landscape are grazing, cutting and burning of succession vegetation.

4.1.1. Grazing

Livestock, administered through the Verderers of the New Forest will have access to the restored areas. This grazing will provide the necessary conditions for maintenance of the desired habitats, their associated ground flora and fauna.

Grazing pressure is dynamic over time and geography. This variable pressure gives rise to a mosaic of habitats across the New Forest. It is this mosaic which gives the landscape such high biodiversity value.

4.1.2. Cutting

Where grazing is not having the desired effect, a mechanical cutting programme may be employed on an annual basis to ensure maintenance of the open habitats. This programme is developed in association with partners such as the Verderers, Natural England and the Commoner's Defence Association.

4.1.3. Burning

In addition to mechanical cutting and grazing, the traditional practice of vegetation management through an annual burning programme adds a further dynamic to the

habitat mosaic. This programme is developed in association with partners such as the Verderers, Natural England and the Commoners Defence Association.

In order for grazing to be effective, certain locations will require changes to the stock fencing routes around Inclosures. Some of these fences perform the added function of supporting the management of New Forest grazing stock by aiding the rounding up of stock for health checks. Because of this, any changes to the fencelines will be designed and implemented in partnership between Forest Enterprise, the Verderers of the New Forest, Natural England and the Commoner's Defence Association.

The ability of stock to safely move around recently felled sites is also a consideration due to the stumps and forestry infrastructure (drains) which remain on site. Such features will also form part of the discussion regarding fence realignment and whether further restoration, such as stump height reduction is required to support safe grazing and stock management.

4.2. The effects on the health and well-being of deer populations

The issue was raised during Scoping that the reduction if wooded area may negatively impact upon the deer populations within the New Forest due to there being fewer areas of solitude away from people.

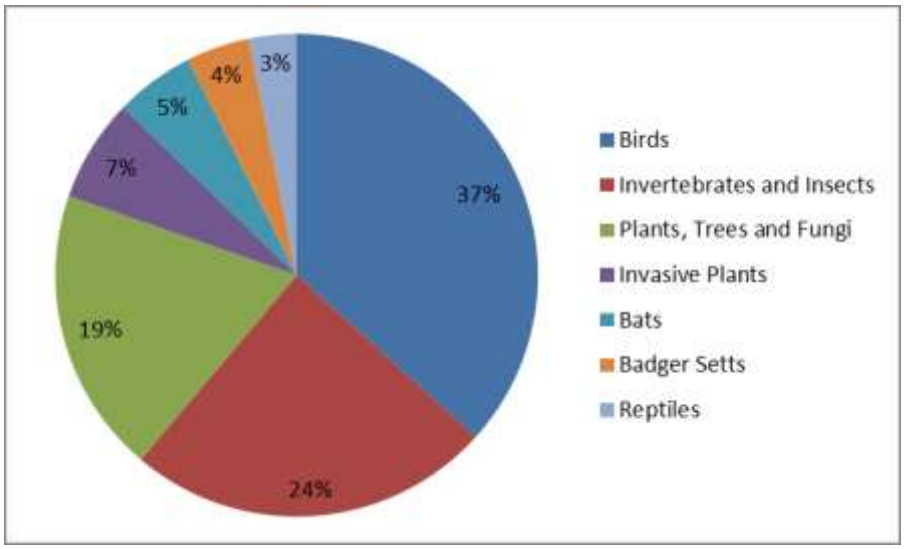
The reduction in woodland cover proposed (from 91% to 86% of the Inclosures area) is minimal. As the areas proposed for open habitat restoration are uniform conifer plantation, less used by the deer than the native woodlands, the impact is again, minimal.

4.3. The effects on incumbent habitats and species

The project will impact upon the current flora and fauna in positive and negative ways. The proposal has been developed to benefit those habitats and species which are notified and / or qualifying features of the nature conservation designations.

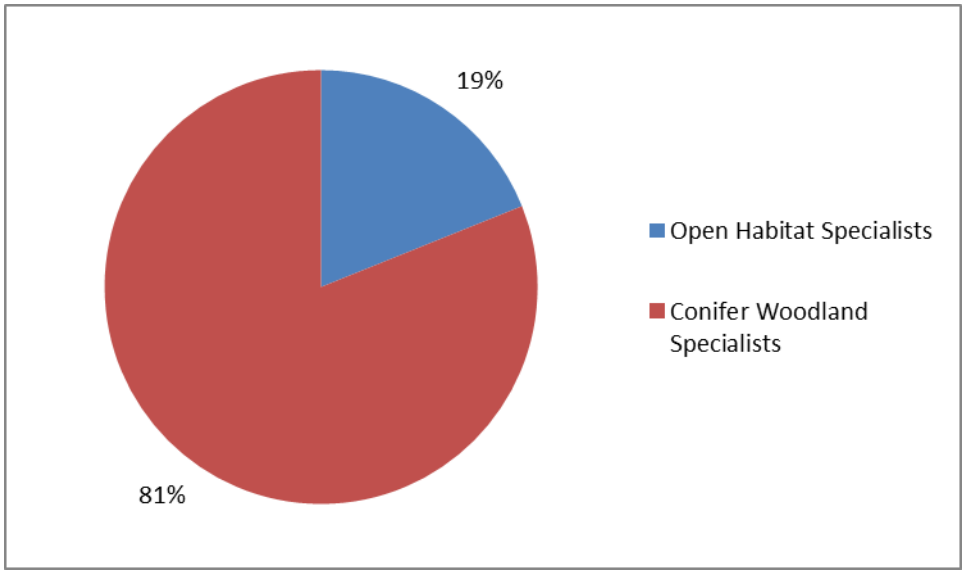
FEE holds biodiversity data for its landholding. This data is refreshed periodically in order to maintain its relevance and to provide adequate support to decision making.

A breakdown of the biodiversity records held by FE within the proposed deforestation area is below:



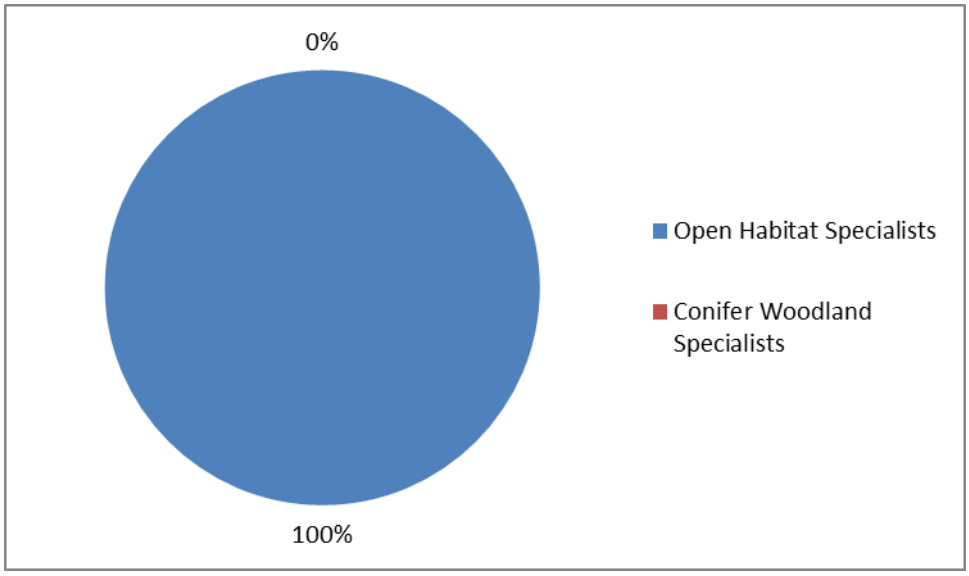
Further analysis of these records reveals a distinction between those species which are open habitat specialists and those which are conifer woodland (the principle current habitat type within the proposal area) specialists, those which are open habitat specialists and those which are generalist species (of flora and/or fauna).

Conifer Woodland specialist records within proposal area	• Crossbill • Goshawk • Firecrest • Honey Buzzard
Open Habitat specialist records within proposal area	• Adder • Dartford Warbler • Woodlark • Nightjar • Sand Lizard • Southern Damselfly



% of species records within proposal area

Of these records, further scrutiny shows that those open habitat specialists are notified or qualifying species of the SAC, SPA or SSSI designations, whereas those conifer woodland specialists are not.



% of species records which are qualifying species within SAC, SPA or SSSI designations

The records of species and habitats within the proposal areas show that while these areas provide more habitat for conifer woodland specialist species than for open habitat specialist species, it is those open habitat species which are afforded specific protection under the SAC, SPA and SSSI designations.

This change should also be seen within the context of change across the landscape as a whole.

Following implementation of this proposal, around 40% of the New Forest Inclosures would continue to provide coniferous woodland habitat for these associated species. Currently, around 53% of the Inclosure area provides such habitats. This reduction is due to this proposal to convert predominantly conifer woodland to open habitats as well as the progression of native woodland restoration within the Inclosures.

4.4. Flora and Fauna Impact Assessments

Potential Impact	Initial Impact Rating	Mitigation Proposed	Resulting Impact Rating
Methods of post-deforestation maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps as well as grazing access and fence realignments	High Inappropriate decisions regarding fence realignment and management of residual forestry infrastructure could severely limit the success of open habitat restoration	• An agreement has been reached between partners which details the approach to be taken when agreeing fence line changes. • Exploration of future partnership projects to support forestry infrastructure restoration to support higher quality open habitat restoration	Low
The effects on deer populations, health and wellbeing	Low	None proposed due to low level of impact	Low
The effects on incumbent habitats and species	Medium	The Operational Site Assessment process ensures operational decisions take account of incumbent species, amending timing, allowing for niche interventions to minimise the impact in the short term whilst supporting the designated habitats and species in the long term	Low

5. Soils and Water

5.1. Relevant Scoping Issues

Relevant issues raised during scoping:

- The effects of post-deforestation methods of restoration and maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps
- The effects of open habitat restoration on the quantity (volume) and quality of water within immediately adjacent watercourses

During Scoping, the interest was focussed on the methods of post-deforestation restoration of open habitats and how these might affect the soils and water. Following tree removal, there are a number of options for the next stages of open habitat restoration. These include raking and burning of arisings (branchwood), stump removal, plough-line restoration and stump mulching. Technological advancements, site specific conditions and locations as well as funding availability will inform the decision making about which is the most appropriate method of developing the required condition of open habitat.

5.2. Soils

The soil structure within the proposal areas varies but is mainly comprised of free-draining sandy soils or surface water gleys.

The deforestation may have a longer term impact on the soil structure through the removal of tree root systems which support soil stability. However the development of open habitat vegetation in the form of heather and molinia will mitigate this to some extent.

Forestry operations to implement tree removal will be carried out in accordance with the UK Forestry Standard and the UK Woodland Assurance Standard which specifically highlight measures for protection of soils during operational works.

Potential Impact of Forestry Operations on Soils	Mitigation Measures
Contamination/pollution from machinery	Appropriate storage and locating of fuel and chemicals; spills kits on hand to ensure fast response and clean-up of any leakages
Soil disturbance/compaction	Minimise machinery movements across sites; use brash mats to reduce disturbance; plan timing of operations to make best use of and protect site specific conditions
Enrichment of soil nutrients from decomposition of arisings	Removal of arisings, with potential to supply fuelwood markets, will support

5.3. Hydrology

An analysis has been carried out to determine the potential impact of the deforestation proposals on the quantity of water entering water courses across the catchments of the New Forest.
The following methodology was applied:

1. Evaporation rates of relevant ground cover types were sourced from Table 1 within Forestry Commission Research Note, Water Use by Trees from April 2005. These were averaged to obtain an average evaporation rate per cover type;

2. The sub-compartment database was used to determine the estimated area of relevant habitats within the Inclosures plus the Ancient & Ornamental Woodlands outside the Inclosures. The open habitats were then estimated to be an approximately equal area of heather, grass and bracken. By collating these percentage breakdowns, these were deemed to be conifers (13%), broadleaves (28%), heather, grass and bracken at 20% each. These percentages were then used to calculate the change in evaporation rate across the New Forest from the current situation to the proposed changes as a result of the clearfelling to open habitats proposed.

3. The comparison is shown in the tables below:

Current

	per 1000mm annual rainfall						
	Transpiration	Interception	Total Evaporation	Current Estimated Area of Habitat (Ha)	Estimated Current % cover of New Forest	Proposal Area (Ha)	%
Conifers	325	350	675	3476	13.0%	277	60%
Broadleaves	345	125	470	7487	28.0%	33	7%
Heather	310	175	485	5259	19.7%	50	11%
Grass	500		500	5259	19.7%	50	11%
Bracken	500	200	700	5259	19.7%	50	11%

Current Total Evaporation per 1000mm of rainfall (mm)	**546**		**623**

Following Proposed Clearfell to Open Habitat

	per 1000mm annual rainfall						
	Transpiration	Interception	Total Evaporation	Current Estimated Area of Habitat (Ha)	Estimated Current % cover of New Forest	Proposal Area (Ha)	%
Conifers	325	350	675	3079	11.5%	0	0%
Broadleaves	345	125	470	7487	28.0%	33	7%
Heather	310	175	485	5391	20.2%	142	31%
Grass	500		500	5391	20.2%	142	31%
Bracken	500	200	700	5391	20.2%	142	31%

	Catchment-Wide Ave		**Proposal Area Ave**
Future Total Evaporation per 1000mm of rainfall (mm)	**549**		**555**

Landscape Scale Comparison:

This suggests that per 1000mm of rainfall, the vegetation types within the New Forest will, on average, catalyse the evaporation of **546mm** (not withstanding other factors such as tracks and roads which would behave differently). In comparison, by removing the areas of coniferous plantation proposed within the 10 years of this Plan, and reverting these to a variety of open habitats of bracken heather or grass, the evaporation rate would have been increased to an average of **549mm** per 1000mm of rainfall, an increase in evaporation rate of **0.5%**.

Proposal Area Comparison:

This suggests that per 1000mm of rainfall, the vegetation types within the proposal area will, on average, catalyse the evaporation of **623mm** (not withstanding other factors such as tracks and roads which would behave differently). In comparison, by removing the areas of coniferous plantation proposed within the 10 years of this Plan, and reverting these to a variety of open habitats of bracken heather or grass, the evaporation rate would have been reduced to an average of **555mm** per 1000mm of rainfall, a reduction in evaporation rate of **11%**.

5.4. Water Quality

The deforestation proposals have the potential to impact upon water quality in a positive way by reducing the potential for acidification of water courses.

FEE works with the Environment Agency to advance the objectives of the Water Framework Directive (WFD). As such, a high level WFD Assessment has been carried out on those water courses which are near to the proposal areas which have been identified as potentially close to watercourses used by fish for spawning. These are Highland Water, Black Water, Huckles Brook, Beaulieu River, Bartley Water, Cadnam River and Avon Water. Recent Environment Agency (EA) data offers the following

Current Status														
	Ecological					Chemical								
	Biological			Hydromorphological		Physico-chemical								
	Fish	Invertebrates	Macrophytes and Phytobenthos Combined	Hydrological Regime	Morphology	Ammonia (Phys-Chem)	Dissolved O2	pH	Phos.	Temp.	N/A
Highland Water	Good (2014)	Good	High	High	Supports Good	High	Good	High	High	High	Good
Blackwater	Good (2014)	Good	High	High	Supports Good	High	Good	High	High	High	Good
Huckles Brook	Moderate (2014)	Good	High	High	Supports Good	High	Poor	High	Good	High	Good
Beaulieu River	Good (2014)	Good	Good	High	Supports Good	High	Moderate	High	Good	High	Good
Bartley Water	N/A	High	Good	Supports Good	Supports Good	High	High	High	Moderat	High	Good
Cadnam River	Moderate	High	Good	Supports Good	Supports Good (2014)	High	Poor	High	Moderate	High	Good
Avon Water	N/A	Good (2014)	Moderate	Supports Good	Supports Good	High	High	High	Moderate	High	Good

Source: Environment Agency. Figures are from 2016 unless stated.

5.5. Assessment of Impacts on Soil and Water Features and Mitigation Measures

Forestry operations to implement tree removal will be carried out in accordance with the UK Forestry Standard and the UK Woodland Assurance Standard which specifically highlight measures for protection of water features during operational works.

Potential Impact	**Initial Impact Rating**	**Mitigation Proposed**	**Resulting Impact Rating**
Contamination/pollution from machinery	Low	Continue to operate within the UK Forestry Standard guidelines, e.g. Appropriate storage and locating of fuel and chemicals; spills kits on hand to ensure fast response and clean-up of any leakages; Reporting to Environment Agency as required	Low
Watercourse bank erosion	Low	Continue to operate within the UK Forestry Standard guidelines, e.g. plan restoration work to reduce the risk of erosion, limit bankside working with heavy machinery	Low

Continued overleaf

Impact aquatic life	Medium	Identify sites of protected aquatic and wetland habitats and species, including spawning areas, and ensure protective buffer areas are established; liaison with EA during site planning of operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	Low
Soil disturbance/compaction leading to increased run-off of silts into adjacent watercourses	Medium	Minimise machinery movements across sites; use brash mats to reduce disturbance; plan timing of operations to make best use of and protect site specific conditions	Low
Reduced shading leading to increased water temperatures	Low	Liaison with EA during site planning of operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	Low

Continued overleaf

loss of navigation markers (sentinel trees) for migratory fish	Low	Liaison with EA during site planning of operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	Low
The effects of post-deforestation methods of restoration and maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps	Medium	Liaison with EA during site planning of operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	Low

6. Climate

6.1. Relevant Scoping Issues

- The effects on carbon sequestration
- The effects on air quality

6.1.1. Carbon Sequestration

In 2017, an assessment of the Carbon Sequestration change due to deforestation was carried out with the following methodology:

1. Main species components of clearfell areas were extracted from the sub-compartment database. These were found to be: CP (28%), Scots Pine (19%) and Douglas Fir (7%). The method outlined in the Woodland Carbon Code from July 2012 was used to estimate the tonnes of CO_2e/ha/year. For each species, the average spacing, yield class and age were extracted from the sub-compartment database. It was assumed that the woodlands had undergone thinning for the purposes of this calculation. This was then multiplied by the clearfell area for the next 10 years to calculate a total CO_2e/year reduction in sequestration.

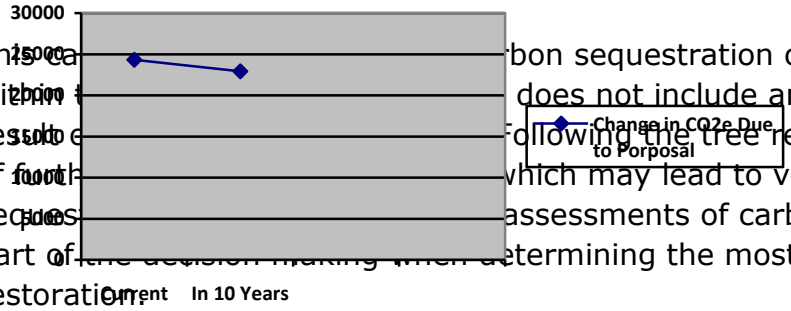
2. The main species components of all the woodland within the New Forest Crown Lands was extracted from the sub-compartment database and rounded to give a broad estimate of the species present. Firstly, the conifer/broadleaf ratio was determined to be 75% broadleaves to 25% conifers. Of the broadleaved portion, the main species were oak and beech combined account for over 80% of the broadleaved woodland area. The remaining 20% consists of over 20 other minor species. For this reason, beech and oak were used to classify the broadleaved woodlands. Oak accounting for 60% of the broadleaved area with Beech accounting for the remaining 40%. The total broadleaved area was calculated at just over 8000 hectares. The coniferous woodland was found to consist of 3 main species. Scots Pine, Corsican Pine and Douglas Fir were found to account for 50%, 25% and 25% of the coniferous area respectively, with numerous other minor species. Again, these major species were used for this calculation. The method outlined in the Woodland Carbon Code from July 2012 was used to estimate the tonnes of CO_2e/ha/year. For each species, the average spacing, yield class and age were extracted from the sub-compartment database. It was assumed that the woodlands had undergone thinning for the purposes of this calculation. Although this is not the case for the A&O woodlands, which are included in this carbon sequestration calculation, it was deemed suitable to use the 'thinned' category due to the age and open pasture woodland character of these woodlands. This was then multiplied by the respective woodland areas to calculate a total CO_2e/year.

3. As the soil types are not likely to be changed by this proposal, as the clearfell areas are plantations upon heathland soils which will remain heathland soils, soil carbon was not used within to determine the effect on carbon sequestration.

4. The results were as follows:

CO_2e sequestered by New Forest Woodlands (tonnes/year)		
Current	Following proposed deforestation	Change
24,300	23,500	3% decrease

The deforestation of around 3% of the woodland within the New Forest Crown Lands (5% of the FDP area) will lead to a 3% decrease in the carbon sequestered by the New Forest woodlands at the moment.



This ca bon sequestration of the growing timber involved with it does not include any change to soil carbon as a result o following the tree removal there are several methods of fort which may lead to varying impacts on the carbon seques assessments of carbon sequestration change will be part of the decision making when determining the most appropriate method for habitat restoration.

6.1.2. The effects on air quality

During Scoping, it was noted that a reduction in tree cover could reduce air quality in what was stated as one of the most polluted areas of the country.

A service provided by the BBC, via MappAir 100 by EarthSense (http://www.bbc.co.uk/news/science-environment-42566393) shows that the New Forest has a pollution rating of 1 out of 6. A rating of 1 (the most favourable score possible on this scale) means there is a low chance of average nitrogen dioxide levels exceeding the annual legal limit. The air in your area is generally clean, although there may still be some high concentrations of NO^2 located close to major roads.

Therefore, the impact of this proposal is minimal with regards to air quality.

6.2. Assessment of Impact on Climate and Mitigation Measures

Carbon sequestration change as a result of the proposal is minimal. However, due to technological advances and potential changes in funding for such projects, new methods

of post-deforestation habitat restoration may become viable such as stump removal, treatment of arisings (branchwood) and reprofiling of plough lines from the time of planting. In such instances, an assessment of the carbon sequestration changes due to these methods will be undertaken as part of the decision making process.

It must also be noted that programmes to restore mire systems, bogs and wet woodlands will likely lead to an increase in the carbon sequestered from these habitats across the New forest. However, as these are not part of this proposal, and the areas within this proposal do not include mire systems, they are not considered as part of the impact or mitigation for this proposal.

Potential Impact	**Initial Impact Rating**	**Mitigation Proposed**	**Resulting Impact Rating**
The effects on carbon sequestration (the specific proposal for deforestation)	Low	No additional mitigation proposed	Low
The effects on carbon sequestration (potential further resoration methods, such as destumping, soil reprofiling)	High	Methodology of carbon sequestration impacts will be developed as part of the decision making for habitat restoration after the trees have been removed.	Low
The effects on air quality	Low	No additional mitigation proposed	Low

7. Landscape and Visual Impact

7.1. Relevant Scoping Issues

- The effects on local landscape character and opportunities for retention of localised, characterful 'clumps'

During Scoping it was determined that the two most likely sites to impact the local landscape character are the deforestation sites at Milllersford & Turfhill and Denny Inclosure. This is due to their location with respect to public roads and the fact that they are not surrounded by retained woodland. As such the change would be more visible from these public roads.

Locations within the Waterside Inclosures and the western edge of Newlands Plantation were identified as potential areas for open habitat restoration. However, these were discounted due to the impact they would have on neighbouring properties (Newlands Plantation) and highly used recreation areas as well as areas which screen industrial sites such as the Fawley oil refinery site (Waterside Inclosures).

7.2. Assessment of Impacts on Landscape and Mitigation Measures

Appendices 4a and 4b show the historic impact of previous open habitat restorations upon the area surrounding Millersford Plantation & Turfhill Inclosure. It can be seen that due to the wide landscape scale and topography of this location, tree removal does not have a long term negative effect on the surrounding landscape in terms of visual appeal.

Appendices 4c and 4d show the local views of Denny Inclosure with current tree cover as seen from surrounding roads. While the short term impact of tree removal would change the nature of this specific location, the wider landscape impact is minimal.

It was noted within Scoping that the removal of non-native, plantation structure woodland from the New Forest landscape would benefit the wider landscape of the New Forest and allow people to see more of the natural landscape for which the area is designated and highly valued, i.e. undulating heathlands interspersed with native woodland and wetlands.

However, the opportunity to retain clumps of trees of landscape value, principally consisting of scots pine and broadleaf trees was proposed as a positive mitigation measure to limit the effects of change.

Potential Impact	Initial Impact Rating	Mitigation Proposed	Resulting Impact Rating
The effects on local landscape character and opportunities for retention of localised, characterful 'clumps'	Medium	Site specific identification of native species clumps and small groups of scots pine which would suit the local landscape character and reduce the immediate impact of the change. To become part of the operational planning process. Education and community engagement about the reasons behind the change and the naturalised, locally and internationally renowned landscape that is being restored.	Low

8. Archaeology

8.1. Relevant Scoping Issues

Relevant scoping issues:
- The effects of implementation methods on historic features and heritage value
- The consideration of New Forest conifer silviculture as a heritage asset in itself

8.2. Archaeology Information

Our current datasets show that there are 87 known features of historic interest within or around the areas within this proposal.

These features, which include burial sites, ownership and management boundaries and industrial sites (kilns) date from prehistory through to medieval times and show the extent of human impact and interaction with the New Forest landscape throughout human history.

Forestry operations to implement tree removal will be carried out in accordance with the UK Forestry Standard and the UK Woodland Assurance Standard which specifically highlight measures for protection of historic features during operational works.

8.3. Assessment of Impacts on Archaeological Features and Mitigation Measures

Potential Impact	**Initial Impact Rating**	**Mitigation Proposed**	**Resulting Impact Rating**
The effects of implementation methods on historic features and heritage value	Low The Operational Site Assessment process takes full account of known features, provides the opportunity for unknown features to be identified, and makes use of	No additional mitigation proposed	Low

	professional archaeologists to inform operational decisions such as machinery access routes		
The consideration of New Forest conifer silviculture as a heritage asset in itself habitats	Low The proposal does not lead to a wholescale removal conifer woodlands within the New Forest, as such conifer silviculture will be retained in the medium to long term	No additional mitigation proposed	Low

See Appendix 5a and 5b for the OSA process which provides the protection and mitigation measures on a site-by-site basis.

9. Interaction Between the Other Factors

- Implementation considerations – The Operational Planning Process
- Monitoring and remedial action
- The effects on the resilience of New Forest habitats
- The effects on wildfire risk
- Opportunities for fluidity and connectivity of habitats
- Implications of the loss of woodland cover and the potential for compensatory planting

9.1. Implementation Considerations – The Operational Site Assessment Process

A number of the issues raised in the sections above are mitigated for within our Operational Site Assessment (OSA) process. This process ensures relevant on-site conditions and features are taken into account when implementing Forest Plan proposals.

The OSA process and form can be found in appendix 5a and 5b. As a result of this Environmental Statement, additional checks to support protection of aquatic habitats and localised landscape character have been inserted to this process.
The OSA process includes space for reflection upon past management of sites to ensure that continuity of decisions and site-specific features is maintained as appropriate.

9.2. Monitoring and Remedial Action

The New Forest Inclosures Forest Plan gives detail on how success will be monitored and gauged in terms of the overall objectives of that Plan.

With specific regard to monitoring the successful conversion of this woodland to open habitats, the following is proposed:

Outcome	Success	Process	Frequency	Potential Reasons for failure	Potential Remedial Action if not Achieved
Successful open habitat	Open habitat	On site visual	5 yearly	• Naturally regeneratin	• mechanical removal

establishment	flora and fauna species established over 80% of the site	assessment		• g trees; • grazing pressure too high for colonisation	programme; • temporary exclusion to allow vegetation to succeed.

9.3. The effects on the resilience of the New Forest

Forest resilience in the face of climate change has become a major factor in decision making and policy development over recent years. The overriding direction being that resilience to the changes to the environment as a result of climate change are best mitigated for through the development of diverse forests with respect to both species present and structure.

Within the New Forest, resilience to the threat of climate change is somewhat different. In the New Forest, there are habitats which are almost unique or are very high quality examples of rare habitats due to historic and current management practices.

This proposal seeks to improve the resilience of these special features of the New Forest by making them bigger and more connected, thus better supporting the wildlife that depend upon them.

The impact of the proposal on the resilience of the New Forest habitats will be positive in terms of those habitats which are rare elsewhere, subject to statutory nature conservation designations and, in some parts, fragmented.

9.4. The effect on wildfire risk

Wildfire was also discussed during Scoping. It was determined that due to the minimal scale of change within the wider landscape, the long established expertise of managing fire within the New Forest (management of fuel loading by grazing, cutting and burning) as well as established and regularly reviewed emergency plans in place to support response to wildfire during higher risk times of year (summer months), wildfire is not a risk factor which is increased as a result of these proposals. This view was reflected in the Opinion Letter (appendix 1).

9.5. Opportunities for fluidity and connectivity of habitats

Across the wide landscape of the New Forest, much of the flora and fauna interest occurs at the areas where different habitat types interact, for example in the transition zone between wet and dry heath. Because of the mosaic nature of the landscape, this proposal does not directly identify which specific open habitat type will be developed upon each site. Following tree removal, any subsequent interventions (such as stump removal or soil re-profiling) would be additional, decided upon in partnership with other agencies and implemented to support the development of naturalised ecosystems which are connected so as to best support the robustness of these habitats into the future.

9.6. Implications of the loss of woodland cover and the potential for compensatory planting

This proposal will inevitably lead to a net decrease in woodland cover. In order to give context to this change, the following has been pulled from Forest Enterprise data:

Landscape Scale	Percentage of Land Area the Proposal Accounts For	Proposal will increase the current Open Habitat resource by:
Forest Design Plan (Inclosures)	5%	38%
FE South Forest District	1%	3%
FE England	0.2%	0.2%

The proposal accounts for 4% of the 11, 060 hectares of additional open habitat restoration potential identified within the Forest Enterprise Open Habitats Strategy (2013).

9.6.1. Compensatory Tree Planting

The 2010 Government Policy document 'When to convert woods and forests to open habitats in England' states certain conditions under which compensatory planting may be required to offset open habitat restoration.

'We will expect organisations proposing conversion of woodland to open habitat to put in place mechanisms to create new and additional woodland in the following circumstances:

- where a person wishes to convert woodland to open habitat where the biodiversity benefits are not significant, or primarily for non-biodiversity

reasons that do not have significant 'spin-off' benefits for biodiversity, where the impact of the expanded habitat on biodiversity is insignificant;

• when the rate of permanent woodland removal is being sustained at a level above the reasonable balance set out in Section 5.3.1, except for sites of exceptional biodiversity benefit;

• when the rate of permanent removal of productive woodland is being sustained at a level above which it is not possible to maintain the total area of productive woodland,[17] except for sites of exceptional biodiversity benefit; or

• when evaluation and review of the policy shows that desired outcomes are not being achieved due to negative impacts through loss of woodland.'

This proposal for open habitat restoration is in order to primarily benefit the designated biodiversity habitats and species of the New Forest. Therefore it is not envisaged that compensatory planting will be required as a result of this proposal.

Assessment of the Impacts upon the Interaction Between Other Features

Potential Impact of the proposal	Initial Impact Level	Mitigation Measures	Impact Level following Mitigation
Implementation considerations – The Operational Planning Process	Low	Additional actions added regarding aquatic features and localised landscape character	Low
Monitoring and remedial action	Low	Monitoring of habitat restoration success at year 5 following tree removal	Low
The effects on the resilience of New Forest habitats	Medium (positive)	No additional mitigation proposed	Medium (positive)
The effects on wildfire risk	Low	No additional mitigation proposed	Low
Opportunities for fluidity and connectivity of habitats	Medium (positive)	No additional mitigation proposed	Medium (positive)

10. Summary of Main Impacts

Overall, the proposal will have a positive impact upon the relevant features as assessed through this Environmental Statement.

A number of additional mitigation measures have been identified to reduce the impact of those features which are more highly impacted. These are summarised in the table below.

Potential Impact of the proposal	**Initial Impact Level**	**Mitigation Measures**	**Impact Level following Mitigation**
Methods of post-deforestation maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps as well as grazing access and fence realignments	High Inappropriate decisions regarding fence realignment and management of residual forestry infrastructure could severely limit the success of open habitat restoration	• An agreement has been reached between partners which details the approach to be taken when agreeing fence line changes. • Exploration of future partnership projects to support forestry infrastructure restoration to support higher quality open habitat restoration	Low
Impact aquatic life	Medium	Identify sites of protected aquatic and wetland habitats and species, including spawning areas, and ensure protective buffer areas are established; liaison with EA during site planning of	Low

		operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	
Reduced shading leading to increased water temperatures	Low	Liaison with EA during site planning of operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	Low
The effects of post-deforestation methods of restoration and maintenance of open habitats including treatment of natural regeneration, lop and top and residual stumps	Medium	Liaison with EA during site planning of operations for sites within 10 metres of wtarecourses (including forest drains) for specific advice.	Low
The effects on local landscape character and opportunities for retention of localised, characterful 'clumps'	Medium	Site specific identification of native species clumps and small groups of scots pine which would suit the local landscape character and reduce the immediate impact of the change. To become part of the operational planning process. Education and	Low

		community engagement about the reasons behind the change and the naturalised, locally and internationally renowned landscape that is being restored.	
The effects on carbon sequestration (potential further resoration methods, such as destumping, soil reprofiling)	High	Methodology of carbon sequestration impacts will be developed as part of the decision making for habitat restoration after the trees have been removed.	Low

10.1. Conclusions

The assessment of the impacts concludes that with the additional mitigation measures proposed, the impact of the proposal upon the relevant factors under the Environmental Impact Assessment (Forestry) Regulations will be reduced medium to low impact.

Any negative impact is balanced by the overall positive outcomes for rare and designated habitats and species which will benefit from the proposal.

11. List of Appendices

Appendix 1:	New Forest Inclosures – FS Opinion Final
Appendix 2:	EIA Scoping Report
Appendix 3:	Fenceline Proposal to Verderers and Agisters
Appendix 4a:	Millersford Landscape EIA Map Year 2000 Images
Appendix 4b:	Millersford Landscape EIA Map Current Images
Appendix 4c:	Landscape Impact Photo Points – Denny Inclosure
Appendix 4d:	Landscape Impact Photos – Denny Inclosure
Appendix 5a:	Operational Site Assessment Process
Appendix 5b:	Operational Site Assessment Form
Map 1:	10 Year Proposal Areas
Map 2:	Broad Habitat Types Following Proposal