

**Purbeck Forest Design Plan/Heathland Restoration Proposals
(2012-2016)
Background and Statement of Reasons Supporting Determination
Environmental Impact Assessment (Forestry) (England and Wales)
Regulations 1999**

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Glossary

Term/Acronym	Definition
Determination	The decision FC ultimately make, as the Competent Authority, under the Environmental Impact Assessment regulations for Forestry, on whether to give consent for a project that is relevant to the EIA regulations. Any consent may be given with or without conditions.
EA	Environment Agency.
EcIA	Ecological Impact Assessment, in this instance undertaken as part of the overall Environmental Impact Assessment).
EIA	Environmental Impact Assessment
EPS	European Protected Species - Animals and plants that receive protection under the Conservation of Habitats and Species Regulations 2010, in addition to the Wildlife and Countryside Act 1981 (as amended).
ES	Environmental Statement.
FC	Forestry Commission.
FDP	Forest Design Plan – Forest Design Plans (FDPs) define the long term vision for a Forest Block and set out how this is going to be achieved on the ground and over a set timescale.
FE	Forest Enterprise – the land management arm of Forestry Commission England
FS	Forest Services – the regulatory arm of Forestry Commission England.
Opinion	The process whereby FC, as the Competent Authority under the EIA regulations for Forestry, give their opinion as to whether a project is relevant under the EIA regulations and whether it will require their consent.
OSA	Operational Site Assessment (OSA) – Undertaken by FE prior to any timber operation starting. The OSA details the work to be undertaken and considers the likely impact the project may have upon the wildlife, heritage and recreation interests for the area. Where potentially adverse impacts are identified, measures are taken to mitigate those impacts.
PFE	Public Forest Estate – Land managed by Forest Enterprise to meet the changing needs of society over the long-term.
RAMSAR	Ramsar sites are wetlands of international importance, designated under the Ramsar Convention which provides for the conservation and good use of wetlands.
RSPB	Royal Society for the Protection of Birds.
SAC	Special Area of Conservation – Areas which have been given special protection under the European Community’s Habitats and Species Directive because their important high-quality conservation value will make a significant contribution to conserving threatened habitats and species identified in the Directive (Annexes I and II).
Scoping	The process of identifying the issues an Environmental Statement must cover to allow the Forestry Commission to make a Determination whether or not to give consent.
Screening	A process used to determine if a project will have a significant effect to allow the Forestry Commission to give their Opinion.
SPA	Special Protection Area – Areas identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds found within the European Union. SPAs are European designated sites, classified under the European Wild Birds Directive which affords them enhanced protection.
SSSI	Site of Special Scientific Interest – A statutory designation which provides protection for the country's very best wildlife and/or geological sites.
Yield Class	A measure of woodland’s growth/productivity. It is determined by the woodland’s mean annual increase in volume and is recorded in cubic metres per hectare. For example, a yield class of 20 means that the woodland will grow by an average of 20 cubic metres over each hectare every year.
OHP	Open Habitats Policy – Government Policy that guides decision on when to allow the conversion of woodland to open habitat.
NERC Act 2006	The Natural Environment and Rural Communities Act 2006. An Act which amongst other things places a duty on all public bodies to have regard to biodiversity conservation when carrying out their functions (section 40) and requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England (section 41).
UKFS	UK Forestry Standard (3rd edition, 2011) - Sets the requirements and guidelines for delivering sustainable forestry in the UK.

1 Purpose

- 1.1 This document explains the background and reasons for Forestry Commission England's decision to grant consent (subject to conditions) for deforestation to restore heathland in and around Purbeck in Dorset.
- 1.2 It sets out the main reasons and considerations on which the decision is based and describes, where necessary, the measures that are required to avoid, reduce and, if possible, offset the major adverse effects of the project.

2 Summary and Conclusions

- 2.1 Forest Services have considered proposals to deforest 195 hectares of plantation woodland under the [EIA regulations that relate to forestry projects](#). The objective of the work is to restore open heathland and mire habitats of international importance. The proposals adjoin land awarded internal and national designations and will therefore buffer and defragment these areas. The restoration of this habitat is anticipated to benefit a range of birds and reptiles and invertebrates, many of which are of conservation concern both in the UK and internationally.
- 2.2 The land is managed by Forest Enterprise and the proposals part of their revised [Forest Design Plan](#) (FDP) for the five Purbeck forest blocks in Dorset¹. The FDP has been drawn together following consultation with stakeholders and the public, and the application for EIA consent has also been subject to a consultation exercise.
- 2.3 The EIA process has identified that the proposals will have some negative impacts. Of these FS consider those which are notable and which are directly caused by the deforestation (rather than tree felling followed by replanting) to be the impacts on woodland birds, bats and carbon balance. However, when the negative impacts are considered in the context of:
- (a) the areas of woodland that will remain in the forest blocks and;
 - (b) the applicant's commitment to adhere to the requirements and guidelines for sustainable forestry set out in the UK Forestry Standard and;
 - (c) the operating procedures that they follow.
- FS have determined that there is appropriate mitigation to address the negative impacts and that they are insufficient reason to not grant consent under the EIA regulations.

¹ Unit F of the New Forest District.

- 2.4 While some mitigation is possible to address the reduction in carbon storage that the proposals will result in, this is minor in terms of the overall long-term loss of carbon storage. With respect to this FS have considered the proposals against the framework for deciding when to convert woodland to open habitat set out in the [Open Habitat Policy](#). The conclusion of this assessment is that the proposals should be allowed, due to their value to nature conservation, without compensatory tree planting. This is because the current rate of woodland creation in England exceeds that being lost to restore open habitat FC do not consider compensatory tree planting to be required.
- 2.5 In conclusion FS have determined that consent should be granted under the EIA regulations but subject to conditions. The conditions are to ensure the positive benefits anticipated by the project are delivered and to ensure key mitigation measures are undertaken to address negative impacts. The EIA consent is valid for 10 years and does not override the need to obtain any other consents that may be required.
- 2.6 In reaching this decision FS note that there is a longer-term vision to restore further areas of open habitat in these forest blocks. While all proposals must be judged on their own merits FS recognise that, as the area of plantation forest in these blocks diminishes, so its value (across the environmental factors covered by the EIA regulations) may increase. As a result further deforestation in these forest blocks in the future is likely to require consent under the EIA regulations.

3 Site and Ownership

- 3.1 The proposals assessed under the EIA Regulations are included within the Purbeck Forest Design Plan (FDP). The FDP sets out the short, medium and long term objectives and proposals for tree felling and forest management over timescale.
- 3.2 The Purbeck FDP covers a group of woodlands in Dorset managed by Forest Enterprise (FE) as part of the wider Public Forest Estate (PFE). The woodlands are 2,972 hectares in area and lie in Purbeck, to the south of the A35/A31 between Poole Harbour and Puddletown. Appendix 1 provides a map of the area. The forest blocks subject to the FDP include:
- Purbeck, also known as Rempstone.
 - Wareham.
 - Gore Heath.
 - Hethfelton.

- Affpuddle.
- Moreton.
- Puddletown.

4 Legislative Background

The EIA (Forestry) (England and Wales) Regulations

- 4.1 The [Environmental Impact Assessment \(Forestry\) \(England and Wales\) Regulations 1999 \(Statutory Instrument: 1999/2228\)](#) make the Forestry Commission (FC) the competent authority for assessing forestry projects. These are:
- **Initial afforestation:** creating new woods and forests by planting trees (on an area that has not had trees for many years). This category includes using direct seeding or natural regeneration, planting Christmas trees and short rotation coppice.
 - **Deforestation:** removal of woodland to convert the land to another type of land use (e.g., heathland, farming).
 - **Forest roads:** constructing forestry roads, including those within a forest and those leading to a forest.
 - **Forest quarries:** quarrying to obtain material (rock, sand and gravel) for the formation, alteration or maintenance of forest roads.
- 4.2 The FC's regulatory role with regard to these EIA regulations (and other regulations such as the Forestry Act) is undertaken by Forest Services (FS). The FS function of the Forestry Commission is separate to that of Forest Enterprise (FE) which is responsible for the management of the Public Forest Estate (PFE).
- 4.3 Under the EIA regulations FS must give an Opinion on whether forestry projects listed in paragraph 4.1 are likely - by virtue of factors such as their nature, size or location - to have significant impacts on the environment. If the proposals will have a significant impact(s) they require FS's consent which may or may not be given after a thorough and objective assessment of the significant impacts has been made. In order to reach an Opinion, FC "screen" the proposals to assess their impacts and whether they might be considered significant.

- 4.4 The regulations provide thresholds to help guide when a project may have a significant impact(s). However, scale is not a single determining factor and the screening process must consider all of the proposals' impacts and whether they are significant on a site-by-site basis. The screening process does not consider alternatives to the proposals or alternative sites, only the proposals presented to assess their potential impacts for significance.
- 4.5 On 26th November 2011 FS confirmed that consent would be required under the EIA regulations for the deforestation within the revised Purbeck FDP because:
- a) The scale of the deforestation proposed in the revisions exceeds the threshold that indicates a significant project².
 - b) The revised plan continues to extend the conversion of land from woodland to another land use type, i.e., open heathland.
- 4.6 An application for consent requires that an Environmental Statement (ES) is prepared. This document must objectively assess the impacts the proposals will have on the environment in contrast to alternative projects/land use.
- 4.7 The topics which the ES should address may be identified through a scoping process. Scoping is the responsibility of the applicant (though they may formally seek the advice of FS). In this case FE consulted key stakeholders on the proposals at a FDP forum meeting on 16th July 2010.
- 4.8 FS confirmed that this exercise satisfied the scoping required for the EIA process and on 26th November 2011 stated that the ES should address at least the following topics:
- Landscape.
 - Land use.
 - Air quality.
 - Climate and its change (existing and future).
 - Ecology and nature conservation.
 - Archaeology.
 - Soils and the impact of timber harvesting on them.
 - Hydrology and in particular site runoff/siltation.
 - Disposal of harvesting arisings.

² Schedule 2 of *The Environmental Impact Assessment (Forestry) (England and Wales) Regulations 1999 [SI 1999/43]* set out thresholds for the types of projects which may require EIA. It states that EIA is likely to be required where deforestation exceeds 0.5 hectare (within a sensitive area, i.e., a National Park or Area of Outstanding Natural Beauty) or one hectare outside of a sensitive area.

- Timber movements.
- Socio-economics.
- Tree planting.

- 4.9 FS received an application for consent along with the ES and supporting documents on 21st May 2013. After an initial review of the ES FS asked that the assessment of carbon was revised to account for the project's impact on carbon emissions and storage over an extended time period (at least one tree crop rotation ~50 years) rather than the period of EIA consent.
- 4.10 A revised carbon assessment was submitted to FS as an addendum to the ES on 8th August 2013 after which FS accepted the application. Consultation on the ES followed, running from 7th October 2013 to 4th November 2013, details of this are set out in section 8. In parallel to consultation on the ES, the felling proposals were also published in the Forestry Commission's Register of New Planting and Tree Felling. The responses to both the ES and felling proposals were considered by FS in their final determination whether to give consent for the deforestation.
- 4.11 FS's current guidance on the EIA process can be found on our webpage: <http://www.forestry.gov.uk/forestry/infd-6dfkbc>.

Other Consents

- 4.12 Approval of the revised FDP is given by the regulatory arm of the Forestry Commission: Forest Services (FS). Tree felling on the public forest estate does not require a felling permission under the Forest Act 1967 but approval of the FDP operates in the same way, authorising the tree felling in the FDP for the next ten years (a felling licence would provide the same authorisation for a private woodland owner).
- 4.13 The works in a FDP will often touch on other regulatory regimes. EIA opinions or consent and approval and the approval of the FDP do not override the requirement to obtain consent under these other regulations.
- 4.14 The Forestry Commission are a competent authority which may be required, by Regulation 61 Conservation of Species and Habitats Regulations 2010, to undertake an assessment of the proposals that may affect a European designated site before deciding to authorise work (e.g., grant a felling licence or EIA consent).
- 4.15 In this case the proposed tree felling is adjacent to and within close proximity to sites which carry these European designations. However, the works are considered to be not likely to have a significant effect on the interest features for which the SAC and SPA have been designated. Consultation with Natural England (NE) identified no requirement for such an assessment.

5 The Proposal

- 5.1 A Forest Design Plan (FDP) sets out the short, medium and long term objectives for forest management within a Forest Block over a specified timescale (usually 50-100 years) including proposed tree felling and restocking. The Purbeck FDP covers a group of Dorset woodlands, 2,972ha in area, which lie in Purbeck, to the south of the A35/A31 between Poole Harbour and Puddletown.
- 5.2 FDPs are subject to a mid-term review to ensure the policies and objectives are still valid and that the FDP is delivering on the ground. A mid-term review for the current Purbeck FDP began in 2010 and was driven by political lobbying not to restock areas of recent tree felling on former heathland sites with trees. The review also coincided with the publication of the Government's Open Habitat Policy (see 5.4). As a consequence of this FE reviewed the FDP with a focus on restoring extensive areas at Purbeck forest (Rempstone) rather than restocking with trees. These areas were in addition to those already identified for restoration to heath in the current FDP.
- 5.3 The ES explains that "*the heathland restoration identified in the proposed FDP is based on the recommendations of the [Strategy for Open Habitat Creation on the Public Forest Estate](#), a review of local constraints and opportunities and stakeholder feedback from the FDP Forum (July 2010) and public consultation (Sept 2010) and subsequent further discussions with key stakeholders (in particular the RSPB and Natural England).*"
- 5.4 The revised FDP (2013) proposes restoring an additional 399 hectares of heathland habitat within the Purbeck Forest blocks. This is in addition to the 1,067 hectares already proposed within the current FDP (2003, 2005) covering a period to 2046 and beyond³.
- 5.5 The application considered by this determination included an ES which assessed the environmental impact of restoring 194.7 hectares (ha) of existing forest to heathland between 2012 and 2026. For the purpose of this ES, this is termed the 'heathland restoration proposals'.

6 National Policy that Relates to the Purbeck FDP

- 6.1 National policy documents provide a general context for considering applications under EIA (Forestry) Regulations. They help to inform decisions by setting down the contemporary standards that should be applied when determining whether or not an environmental impact is likely to be significant and/or whether consent should be granted.

³ This felling has not yet been brought forward for felling permission or EIA consent at this time..

- 6.2 The Government's current policy and priorities for forestry in England are set out in the [Government Forestry and Woodlands Policy Statement](#) (January 2013). This was drawn together in response to recommendations made by the [Report of the Independent Panel on Forestry](#) (July 2012). The policy statement sets a hierarchy of priorities for England's woodlands of protection, improvement and expansion in the context of key Government principles, such as economic growth, localism, deregulation, targeted government intervention and delivering value for money. It also reaffirmed Government's commitment to the Open Habitats Policy to deliver benefits for wildlife and the natural environment, and pledged to publish a strategy for open habitat creation on the PFE. The statement cited the restoration of lowland heath in Dorset as an example of the PFE's commitment to improving the natural environment through participation in landscape-scale initiatives, such as Nature Improvement Areas (see paragraph 6.10).
- 6.3 The Government's approach to sustainable forestry is underpinned by the [UK Forestry Standard](#) (3rd edition, 2011). The Standard sets the requirements and guidelines for delivering sustainable forestry in the UK. Of particularly relevance to this proposal is Good Forest Practice Requirement 3:
- "There is a presumption that forest land should not be converted into other land uses; guidance on the exceptional situations where woodland removal may be possible is available from country forestry authorities."*
- 6.4 The Government's policy for conversion of woodland to open habitat in England is outlined in [When to Convert Woods and Forests to Open Habitat in England: Government Policy](#) (March 2010). This provides a mechanism for balancing woodland removal and woodland creation to enhance open habitats to benefit wildlife and creating woodland to help mitigate climate change. The policy also provides a framework for site-by-site decision-making based on converting woodland to open habitat where it will consolidate current high quality habitat, or where it will significantly enhance key species and habitats.
- 6.5 The [A Strategy for Open Habitat Policy Delivery on the Public Forest Estate](#). (20th December 2013) sets out the framework for planning the restoration of open habitat from existing forest across the FC estate in England. Its publication was a key action in the Government Forestry and Woodlands Policy Statement (see paragraph 6.2). Due to the requirement for a revised Forest Design Plan for the Purbeck forest blocks, the recommendations of the strategy (which was in draft at the time the revised FDP was developed) have been accounted for in the revisions to the Purbeck FDP. The strategy states:

"The Dorset lowland heathlands were identified in 2009 as the single additional national priority area not fully addressed in existing plans. Here an extensive and ambitious programme of additional open habitat restoration from former woodland and plantation has been developed since 2009 and incorporated into the areas of planned open habitat within agreed Forest Plans. This programme will further the creation of a resilient and sustainable landscape of open heath, mires, pools, patches of scrub, woodland and forestry across Purbeck as a major contribution to the aims of the Wild Purbeck Nature Improvement Area."

- 6.6 [Biodiversity 2020: A strategy for England's wildlife and ecosystem services](#), explains how internal and EU commitments on biodiversity are being met in England and provides the strategy for biodiversity policy through to 2020. It builds on the [Natural Environment White Paper "The Natural Choice"](#) (published June 2011) which shifted the emphasis of conservation work from piecemeal methods to an integrated landscape-scale approach and was informed by the UK National Ecosystem Assessment (NEA) which found over 40% of priority habitats and 30% of priority species were declining. The strategy's over-arching mission is to:

"halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people".

- 6.7 Outcome 1B of the strategy is relevant to this project: it aims for "more, bigger and less fragmented areas for wildlife, with no net loss of priority habitats and an increase in the overall extent of priority habitats by at least 200,000 hectares (lowland heathland accounts for 7,500 hectares of this target⁴).
- 6.8 The capacity for trees and wood products to mitigate climate change is recognised in international agreements and national policies to address climate change. Internationally the UK is party to the Kyoto Protocol which sets binding targets for the European Community to reduce greenhouse gas emissions⁵. Domestically the [Climate Change Act 2008](#) sets a legally binding target to reduce greenhouse gas (GHG) emissions by 80% by 2050, based on the 1990 baseline (through a series of five year carbon budgets). The inventory of GHGs used to assess progress against the Climate Change Act and Kyoto Protocol commitments includes GHG and the carbon uptake associated with afforestation, deforestation and forest management.

⁴ Based on information on targeting grant aid under the new rural development programme and was developed and adopted by the Terrestrial Biodiversity Group, who oversee the delivery of the Biodiversity 2020 strategy.

⁵ During the first commitment period the European Community committed to reduce GHG emissions to an average of five percent against 1990 levels. During the second commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020.

- 6.9 The UK Carbon Plan explains the measures that will be taken to achieve the domestic targets for GHG reduction set within the framework of the Climate Change Act 2008. While the Plan recognises there are uncertainties associated with “emissions, future trends, and the potential for permanent sequestration of GHGs through land management” it also acknowledges the role of woodland creation and sustainable forest management in sequestering carbon, and an increased use of sustainable wood products which store carbon and act as substitutes for materials with higher emissions associated with their production. The Plan states the need to protect and where possible enhance carbon stores in soil.
- 6.10 The site is within the [Wild Purbeck Nature Improvement Area \(NIA\)](#). The NIAs take forward the recommendations for “ecological restoration zones” made in the [Making Space for Nature](#) review. A key aim of these areas is to deliver significant enhancements of the ecological network over large areas by enlarging and enhancing existing wildlife sites, improving the ecological connectivity between sites and/or creating new wildlife sites. While the NIAs have no legal standing they are a key mechanism by which the integrated landscape-scale approach to conservationⁱ advocated by Biodiversity 2020 will be deliveredⁱⁱ.
- 6.11 Section 40 of the [Natural Environment and Rural Communities Act 2006](#) applies to the Forestry Commission. This section places a duty on the Forestry Commission in carrying out its functions to have regard, so far as is consistent with the proper exercise of those functions, to conserve biological diversity.

7 Operational Procedure Relevant to the Purbeck FDP

- 7.1 It is standard practice for FE to undertake an Operational Site Assessment (OSA) prior to the commencement of any timber operation. This assessment details the work to be undertaken and considers the likely impact the project may have upon the wildlife, heritage and recreation interests for the area. Where potentially adverse impacts are identified measures are taken to mitigate those impacts.
- 7.2 In the context of the proposals considered in this EIA this procedure is essential to ensuring mitigation is provided against negative impacts and ensuring compliance with Good Practice. In certain circumstances the OSA and adherence to Good Practice will ensure the works comply with legal requirements.
- 7.3 Full details of the purpose, methods and issues addressed by the OSA procedure are presented in Appendix 2.

8 Principle of Deforestation

- 8.1 Current forestry and planning policies do not explicitly prevent deforestation but within the UKFS and legislation controlling tree felling (Forestry Act 1967) there is a strong presumption against deforestation and this is applied by FS through its administration of felling licences.
- 8.2 Nevertheless, UKFS recognises that there are exceptional circumstances in which it would be appropriate to remove woodlands and restore open ground habitats. The framework for deciding when to allow deforestation is set out in the Open Habitats Policy. However, in most cases compensatory woodland planting should be carried out to ensure there is no net loss of woodland area. Only in cases where there are overriding reasons for removal of the woodland, such as where the biodiversity value of the restored open habitat would be nationally significant, would compensatory tree planting not be required.
- 8.3 Forestry projects involving deforestation that exceeds a minimum threshold area need to be considered under the EIA (Forestry) Regulations and in most cases a felling licence would also be required. This proposal was considered under the EIA (Forestry) Regulations which considered the significance of the environmental impacts associated with the project.

9 Summary of Consultation

- 9.1 The application for EIA (Forestry) Consent and the documents accompanying the application, including the Environmental Statement, were subject to public and statutory consultation between 7th October 2013 and 4th November 2013. Notice of the consultation exercise was published in the Western Gazette and Southern Daily Echo.
- 9.2 The newspaper adverts advised members of the public that the Environmental Statement and associated documents could be viewed at Dorchester and Wareham public libraries and the Forestry Commission Offices at Bullers Hill (Exeter), Wareham or Lyndhurst and that anyone who wished to make representations about the application should write to the Forestry Commission within 28 days.
- 9.3 FS provided the Environment Agency (EA), Natural England (NE) and the Local Planning Authority (Purbeck District Council) with copies of the application and ES. FS are required to consult these organisations under the EIA regulations, and requested any representations regarding the application within 28 days.
- 9.4 Due to concerns that the proposals may increase the risk of wildfire on the land FS also sought comments from the Dorset Fire and Rescue Service, setting a 28 day period for a response.

- 9.5 Consultation responses were received from all the relevant statutory bodies, as well as Dorset Fire and Rescue Service and Dorset Wild Purbeck Nature Improvement Area Partnership and RSPB. No responses were received from members of the public.

Issues Raised by Consultees

- 9.6 NE and RSPB expressed concerns that the ES underplayed the positive impacts which the proposals will have by expanding and buffering priority heath and mire habitat land and providing habitat for priority species.
- 9.7 The response from Dorset Fire and Rescue Service asked that the planning process and steps taken to assess fire loading and risk associated with the heath land restoration were consistent with methods/good practice (set out in the Vegetation Fire Risk Management Toolkits and forthcoming Practice Guide on Building Wildfire Resilience into Forest Management Planning) in terms of managing the fire loading to protect sites from wildfire. They also requested that the availability of water supplies to support firefighting was considered in the context of the proposals.
- 9.8 The response from EA raised no immediate concerns but drew attention to the need to protect unlicensed groundwater supplies and advised of the potential requirement for consents if land drainage would be affected.
- 9.9 The specific points raised during the consultation are considered further through out section 10. The RSPB, NE and Wild Purbeck Nature Improvement Area Partnership responses expressed the view that the current proposals did not go far enough in restoring open habitat. It is not within the scope of the EIA regulations to consider the ambition of proposals, only to consider the impacts of the proposals brought forward and whether consent should be awarded in light of the proposals' likely impacts.

10 The EIA Determination

- 10.1 The EIA determination process provides the framework for assessing whether the project will have a significant impact on the environment. The decision on whether or not to grant consent takes account of the environmental impacts of a proposed project and takes into consideration the environmental information, representations received in relation to the application, and any other material consideration. In particular these include the assessment of direct and indirect effects of the project on the environmental factors listed in Schedule 4 of the EIA (Forestry) Regulations:
- i) Human beings, fauna and flora.
 - ii) Soil, water, air, climate and the landscape.

iii) Material assets and the cultural heritage.

iv) The interaction between the factors mentioned in (i) to (iii) above.

10.2 In evaluating the effects of the proposed deforestation a number of criteria have been used including:

- The degree of change in environmental conditions.
- The scale, extent and duration of the project.
- The number of people and of other receptors affected.
- The value and scarcity of the resources affected.
- Whether the proposal results in any breach of environmental standards.
- Whether any protected sites or features are affected.
- The probability of the effect occurring.
- Whether the effect is permanent or temporary, reversible or irreversible, continuous or intermittent.
- Whether it will be feasible to avoid, reduce, remedy or compensate for the effect.

10.3 Whether or not deforestation proposals gain EIA consent is determined on a case by case basis and depends upon whether the net environmental impact of the project, i.e., the balance of negative and positive effects, is considered by the Relevant Authority (FS) to be significant.

10.4 In assessing the proposal's impact on these factors FS has considered the following specific issues:

- Ecology and Nature Conservation
- Landscape and Visual Amenity
- Land Use and Socio-Economics
- Hydrology
- Air Quality
- Carbon Balance
- Historic Environment

10.5 The following sections consider these factors and outline:

- The main reasons and considerations on which the decision is based.

- A description, where necessary, of the main measures recommended to avoid, reduce and, if possible, offset the major adverse effects of the project.
- The conditions which are attached to the EIA consent.

Ecology and Nature Conservation

- 10.6 The EIA considered the impact of both the tree felling and establishment of the heathland on habitat and species composition. To establish a baseline, data was gathered from existing biological records (since 1995) and a rapid field assessment of the areas proposed for conversion to open habitat took place in April 2013. The field assessment focused on notable protected groups of species but looked at potential habitat for these species and groups rather than assessing actual presence or populations of species. FS are satisfied this approach provides a conservative and valid assessment of the possible impacts on key species.
- 10.7 Institute of Ecology and Environmental Management (IEEM) guidelines and criteria were used to undertake an Ecological Impact Assessment (EcIA). This method considers the significance of proposals' impacts on the basis of:
- The site's ecological value which is determined by the habitats and species present in the project area and its immediate vicinity and their role in wider ecological processes.
 - The magnitude of any impact: if it is positive or negative, its frequency, extent and duration and whether it is reversible.
 - The *likelihood* of the impact occurring.
- 10.8 It is important to bear in mind that the EcIA methods focus on objectively assessing significant impacts the project will have. The focus is often on the negative because it is these impacts that indicate where mitigation is required and influence the consent decision. Therefore an EcIA does not necessarily indicate or consider the wider positive impacts a proposal may have, for example the contribution proposals may make to delivering policy objectives for the restoration of open habitat. These are more appropriately considered in the framework of the Open Habitats Policy (see paragraph 6.4).

Context

- 10.9 Almost all the designated land within the forest blocks has already been restored to open habitat⁶ but the ES explains that the proposal areas are in close proximity to a number of nationally and internationally designated sites – which are often adjacent to or within the forest blocks and immediately next to proposal areas (see Appendix 3). The biological records assessed for the EIA also found rare, scarce and protected species are present around the proposal areas.
- 10.10 The proposals are close to two Special Protection Areas (SPA), particularly the Dorset Heathland SPA, an extensive SPA which borders or overlaps all the forest blocks but Puddletown. This designation applies due to the populations of Dartford warbler (*Sylvia undata*), nightjar (*Caprimulgus europaeus*) and woodlark (*Lullula arborea*) and hen harrier (*Circus cyaneus*), and merlin (*Falco columbarius*) in the winter (all of which are either protected species or birds of conservation concern in the UK and some of which are listed on Annex I of the EC Birds Directive).
- 10.11 Four Special Areas of Conservation (SAC) are also within the immediate area, most notably the Dorset Heaths (Purbeck and Wareham) & Studland Dunes SAC which is adjacent to or overlaps the Wareham and Purbeck blocks, and the Dorset Heaths SAC which has a wider distribution being adjacent to and/or overlapping all but the Puddletown forest block.
- 10.12 Both of these SACs have been designated due to the presence of habitats listed in Annex I of the EU Habitats and Species Directive. These include Northern Atlantic wet heaths with *Erica tetralix*, European dry heaths and Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix*. The presence of a small population of southern damselfly (*Coenagrion mercurial*) is also a reason for the designation - this species is listed in Annex II of the EC Habitats and Species Directive and is found around base-rich watercourses within wet heathland.
- 10.13 Two sites with Ramsar designations are found close to the proposal areas. Of these the Dorset Heathlands Ramsar is perhaps of most relevance due to its distribution in relation to the proposal area, and because it has been designated due to:
- The high quality of the northern Atlantic wet heaths with *Erica tetralix* and acid mire with *Rhynchosporion*.
 - The presence of nationally rare and scarce wetland plant and invertebrate species.
 - The diversity of species and wetland habitat types found and its location within one of the “most biologically rich wet land areas of Great Britain”.

⁶ Only 5.5 hectares of the proposal area is subject to a designation: areas with the Dorset Heathland SPA, Dorset Heaths SAC and Dorset Heathlands RAMSAR in the Affpuddle forest block.

- 10.14 Most of these designations share similar distribution and overlap with one another. The majority of the land subject to the Dorset Heathland SPA designation is also subject to the Dorset Heaths SAC, Dorset Heaths (Purbeck and Wareham) & Studland Dunes SAC and Dorset Heathlands Ramsar designations.
- 10.15 Five Sites of Special Scientific Interest (SSSI)⁷ lie within the Purbeck FDP area (refer to Appendix 3), though there is minimal overlap between these and the proposal areas. These are principally designated for the quality of the habitat they provide and species they support as part of the complex of Dorset heathland.
- 10.16 The biological records assessed in the EIA identified the presence of a range of notable and protected species in the woodland areas. Protected species included species of bat, reptile, mammal and bird, including five birds listed in Annex I of the EC Birds Directive.

Habitats

- 10.17 The tree felling's impact on habitat will be the loss of plantation forest. The greatest reduction will take place in the Purbeck forest block where, by 2026, only 40% of the site will remain plantation woodland. Despite this, the ES concluded that overall the impact of losing this habitat would not be significant because extensive areas of plantation forest will still remain within both the Purbeck forest blocks and the wider landscape. This conclusion is logical because the ES determined that the ecological value of the habitat provided by the plantation woodland was limited to site level because the habitats found in the areas to be restored to heath were widespread across the project and surrounding area.
- 10.18 The ES also considered the impact of physical disturbance that the tree felling and heathland restoration may have on the surrounding woodland habitat. It concluded that such disturbance was not significant because it was temporary, would not result in a permanent effect and access to the restoration areas will be provided by existing routes through the woodland.
- 10.19 The EcIA concluded that the increase of heathland habitat provided by the project would include priority habitat, i.e., heathland habitats listed under Annex I of the EC Habitats Directive because they are most threatened and endangered). In addition, in some locations the restoration work would buffer and link existing areas of heathland and open habitats subject to SAC, SPA and Ramsar designations. As a consequence the re-establishment of heathland was classified as a positive and permanent impact.

⁷ Morden & Hyde Heath, Rempstone Heaths, Stokeford Heaths, Oakers Bog and Turnerspuddle Heath.

10.20 The scale of this impact was limited to no more than County level because, while most of the restoration is within 500 metres or immediately adjacent to sites subject to national or international designations, in reality the proposals will only increase the heathland habitat by a small proportion. It was not considered essential to maintaining the viability of the priority habitat at a national or regional level. Neither are the restoration areas subject to international or national designations (apart from 5.5 hectares principally in the Affpuddle forest block, the other areas being minor overlaps between the felling compartments and the designations).

Invertebrates

10.21 The assessment of biological records undertaken to inform the EIA found records for notable invertebrate species, including heath tiger beetle (*Cincindela sylvatica*) which is listed in the UK Biodiversity Action Plan and three with an endangered conservation status (Purbeck mason wasp (*Pseudepipona herrichii*), *Homonotus sanguinolentus* and *Chrysops sepulcralis*). However, FS note that the majority of these species are associated with heath or other open habitat (for example the endangered species above utilise heather or heathland).

10.22 The results of the field survey reported in the ES found that habitat available for invertebrates was limited, rising from negligible or low to moderate potential only where the tree canopy was more open and has allowed ground flora to flourish. In light of this, and due to the fact that the notable invertebrates listed in the biological records require heath or open habitat, the ES concludes that the proposal area has site level ecological value for invertebrates. Similarly, due to the limited potential for invertebrate fauna in the project area, the ES anticipated that the tree felling would not have a significant impact on invertebrate populations.

10.23 The establishment of the heath was expected to have a positive impact, increasing optimal habitat, linking up existing heathland and ensuring the regular creation of bare ground which, especially when on south facing slopes, is used by some species for hunting, basking and larval burrows. As a result the positive impact of heath establishment is expected to be significant and permanent at a local level.

Badgers

10.24 The EIA looked at biological records for badgers which originated from a survey in 2000-2001. This identified the presence of seven setts, of which only two were active at that time. While this situation may have changed the field survey found that potential habitat for badgers was limited to no more than moderate potential in compartments where dry ground and sloping topography may allow the excavation of setts. The potential for badgers and the development of large setts was considered to be undermined further by regular disturbance caused by management of the plantation and the poor quality foraging conifer plantation provides badgers.

10.25 Despite this the assessment recognises that if setts are present within the area of tree felling it could result in the loss of habitat, disturbance and possibly death to animals. This impact is considered to be negative but also unlikely due to the limited potential for these animals. The impact was limited to the site level and mitigation is proposed by following the Forestry Commission Forest Practice Guidelines on Forest Operations and Badger Setts.

10.26 The creation of heathland after tree felling was not expected to have a significant impact on badgers because open heathland does not provide a notable improvement in foraging habitat for this animal.

Bats

10.27 Records for bats in the forest blocks are derived from bat boxes. Records of the following species:

- Noctule (*Nyctalus noctula*)
- Brown long-eared bat (*Plecotus auritus*)
- Natterer's bat (*Myotis nattereri*)
- Whiskered (*Myotis mystacinus*)
- Brandt's (*Myotis brandtii*)
- Common pipistrelle (*Pipistrellus pipistrellus*)
- Soprano pipistrelle (*Pipistrellus pygmaeus*)
- Nathusius' pipistrelle (*Pipistrellus nathusii*)

10.28 The field survey found most forest blocks contained trees large enough to have roosting features but these were infrequent. All the forest compartments were found to provide a foraging and commuting resource for bats to varying degrees, but this becomes more limited where the trees are denser and the potential for foraging is reduced to only the woodland edge. Because the main value for bats was for foraging and commuting and such habitat is abundant in the immediate area the proposal areas were considered to have ecological value at a local level for bats.

10.29 The ES determined that tree felling would have a negative impact - due to habitat loss, disturbance and potentially death but the ES considered this was an impact local populations could recover from. Because the potential for roosts was limited the impact of tree felling on roosts and roosting sites was not considered to be significant.

10.30 Bats need to move freely between foraging areas and linear features are used for this purpose. The large open spaces the felling would create will fragment commuting routes and as a result the ES concludes the tree felling

will have a negative impact on commuting and foraging. This impact was considered to be permanent and significant at a local level in the Affpuddle and Purbeck forest blocks where 18% and 20% of the tree cover would be lost. In the other forest blocks, where the felling would reduce a small proportion of the tree cover, the impact was not considered to be significant.

- 10.31 In contrast to woodland, heathland provides no roosting habitat for bats, has limited value for commuting and its potential value for foraging is dependent on the type of vegetation that surrounds or is found within the heath. As a result of these factors the heathland that would be created by the proposals was found to not have a significant impact.

Birds

- 10.32 Given the extent of woodland habitats retained within the wider landscape, the impact of habitat loss as a result of the proposed felling is only considered significant at site level for typical woodland birds such as woodcock and common crossbill.

- 10.33 The ES reports that biological records of 21⁸ notable species of protected bird were found in the forest blocks. All wild birds are protected under the Wildlife and Countryside Act 1981 but of these a number are specifically included in Schedule I of the Wildlife and Countryside Act 1981 while five are rare or vulnerable species in the UK and/or Europe (being listed in Annex I to the EC Birds Directive) which may be affected by the proposals:

- Dartford warbler (*Sylvia undata*),
- Nightjar (*Caprimulgus europaeus*),
- Woodlark (*Lullula arborea*),
- Honey buzzard (*Pernis apivorus*)
- Hen harrier (*Circus cyaneus*)

- 10.34 The field survey found that the potential value of current plantation forest varied for different species but that overall the value was at site level because most of the birds have a general preference for scrub and/or woodland with a varied structure more common in deciduous woodland found in the wider vicinity rather than conifer plantation.

⁸ During the review undertaken for this determination FS found that the ecological report lists records of 27 species and has confirmed that the 21 listed in the ES is an error. Of the 27 species kingfisher, peregrine, teal and tufted duck were discounted from the list because no impact was anticipated for these species. The ES should therefore report 23 notable species of relevance to the project. Note: while no impacts were anticipated for these species the site survey still took account of their potential presence.

- 10.35 The ES considered the forestry compartments' ecological value for nightjar, Dartford warbler and woodlark which are species of national and international importance with strongholds in Dorset. The ecological value was *local* for nightjar which make use of woodland edge habitat for foraging and movement. Dartford warbler and woodlark are not dependent upon habitat provided by woodland so the forest areas had negligible ecological value for these species.
- 10.36 Other important species groups which the forest blocks contain potential habitat for were raptors, including the honey buzzard and hobby which are Annex I species which nest in mature pine. The project areas were considered to have local value for these species because, while plantation habitat is plentiful in the immediate and wider area, these birds are dependent upon an extensive habitat network.
- 10.37 The impact of habitat loss was found to be negative and significant at the site level for woodland specialists, principally common crossbill, which are dependent on conifers for both nesting and feeding. Other species that may be present in the project areas make use of habitat provided by woodland in different stages of development and are more able to cope with changes caused as a result of forest management. As a result habitat loss for other species was predicted to not have a significant impact.
- 10.38 In contrast the ES determined that the creation of heathland was likely to have a positive significant impact at a local level due to the creation of habitat utilised or favoured by the birds of conservation believed to be present in the forest blocks of surrounding areas (nightjar, woodlark, Dartford warbler, linnet and yellowhammer).
- 10.39 The impacts of disturbance and potential loss of life linked to tree felling were considered to be significant and negative at the site level where the works would take place. To address this mitigation measures were proposed.

Reptiles

- 10.40 The ES explains that the heathland around the project area currently provides optimal habitat for reptiles but the rapid survey found that the potential habitat for reptiles in the proposal areas varies between and within the forest blocks.
- 10.41 The greatest potential habitat was found where the tree canopy was most open and provided opportunity for a ground flora to establish and basking, for example compartment in the Gore Heath and Affpuddle blocks and on the southern edges of woodland blocks, which provide dry and sheltered sites for basking and potentially hibernation, for example the southern edge of Hethfelton. Elsewhere the plantations had limited value for reptiles though they could harbour limited numbers of reptiles moving from surrounding open habitats and the plantation's southern edges could

accommodate niches and hibernation sites. Overall the project area was considered to have site level ecological value for reptiles.

- 10.42 The ES concludes that the tree felling will have a negative impact with the potential to cause habitat loss, disturbance and loss of life. However, the likelihood of this impact will vary depending on the compartments' potential to harbour reptiles. This impact was considered significant at the site level where the felling will take place but it was noted that this impact would occur irrespective of the heathland restoration because trees would be felled as part of a normal cycle of clear-felling and replanting.
- 10.43 Restoration of the heath was considered to have a positive and permanent impact because it will increase the potential habitat for reptiles, indeed the ES indicates that the proposals would result in a significant increase in reptile populations. This impact is anticipated at a local level, supporting a small, but viable, population at a local level.

Consultation Responses

- 10.44 The responses from NE and RSPB were relevant to the impacts on ecology and nature conservation.
- 10.45 NE comments noted that the FDP affected six SSSIs and SPA, Ramsar and SAC designated land. NE considered the proposals in the FDP to be consistent with all of the affected SSSI management plans and that the FDP would "*further the conservation and enhancement of the features that have led to the designation of the SSSIs*". As a result NE raised no objection to the proposals. No requirement for an Appropriate Assessment under the Conservation and Habitats and Species Regulations 2010 was identified (though any requirement for such an assessment may be satisfied by the EIA itself). NE considered the proposals to be of critical importance to delivering high value open habitats under the Open Habitats Policy. This fact is also recognised by FE's draft Open Habitats Strategy (see paragraph 6.5) and led to the proposals.
- 10.46 FS recognise that considerable work has been undertaken by the applicant in developing a FDP that delivers the aims of the open habitat strategy to manage areas of forest in accordance with the UKFS. FS also appreciate some stakeholders involved in the FDP forum expressed a desire that more woodland was retained (see appendix 5).
- 10.47 The consultation responses from both NE and RPSB set out concerns at the conclusions drawn by the ES that the impact on habitat restoration was of only County level ecological value. Natural England challenged this conclusion on the basis that the assessment of significance had failed to account for the benefits the project would provide at National and International levels because restoration of Annex I habitats at a viable scale indicated criteria for National if not International level applied. In addition NE considered the proposals would also restore habitat for birds listed on

Annex I of the EC Birds Directive. Because these birds are of conservation concern across the European Union, this was cited as further evidence for the proposals' international value. The same line of reasoning was applied by NE in relation to reptiles listed in Annex IV of the EC Habitats and Species Directive. RSPB echoed this concern.

- 10.48 NE considered the impact on reptiles, particularly sand lizard and smooth snake which are listed in Annex 4 of the EC Habitats and Species Directive and are species of principal importance under section 41 of NERC Act 2006, was not adequately addressed. RSPB also echoed these concerns.
- 10.49 In making this EIA determination FS have referred back to the ecological report that underpins the ES. FS also note the value of the proposals in delivering nature conservation at national and international level. However FS note despite NE's concerns with regard to this, the ES still concludes the proposals will have a positive impact on birds and reptiles, conclusions FS agree with. FS therefore consider the ES conclusions are valid.
- 10.50 NE and RSPB considered that the ES failed to reflect the true significance of habitat creation's positive impact in the national context having a negligible impact at this level (paragraph 6.53 of the ES). These consultees took the view that the restoration potential should be judged against the national target for heathland re-creation rather than assessing against the national area of heathland.
- 10.51 FS acknowledge that the ES has applied a conservative approach and focused on negative impacts because these affect consent decisions and conditions for mitigation.
- 10.52 NE and RSPB considered the ES failed to recognise the contribution the proposals would make to national target for habitat restoration under Biodiversity 2020. i.e., the impact should be considered in the context of the national targets for lowland heath creation rather than the proportion of existing heath.
- 10.53 FS understand these concerns given the clear rationale for the proposals and the evidence of the nature conservation gains the proposals would result in and the contribution the proposals will make to Biodiversity 2020 Strategy outcomes. However FS are content that the EIA has considered the impacts in an objective manner following well established guidelines to provide an assessment designed to help inform the decision whether to grant consent. FS note that the focus of the EIA is often on the negative impacts because it is these impacts that indicate where mitigation is required and influence the consent decision. Therefore an EIA does not necessarily indicate or consider the wider positive impacts a proposal may have, for example the contribution the proposals may make to delivering policy objectives for the restoration of open habitat. FS consider it more appropriate to consider these wider positive impacts within the framework of the Open Habitats Policy (see section 11).

- 10.54 NE's view was also that the IEEM guidelines used for the Ecological Impact Assessment support an approach that considered the contribution a project will make to national and local BAP targets and increasing the extent of UK Priority Habitat in determining a project's significance, and that this had not been accounted for in the ES.

Conclusions and Mitigation

Habitats

- 10.55 FS accept the ES's conclusion that the proposals will, overall, have a positive effect on habitats in the proposal areas and have determined that the impact on habitat is not a basis on which to not grant consent. The detrimental impacts associated with tree felling would take place in a scenario where the trees were felled and replanted and, since the majority of the felling is taking place at maturity FS do not consider this impact to be a direct consequence of the deforestation.
- 10.56 The proposals will restore areas of internationally and nationally important habitat⁹ and improve conditions for priority species, restoring four habitats of international importance, as identified by their listing in Annex I of the EC Habitats and Species Directive. As shown in table 1, some of these habitats have very limited cover in England and action is required to improve their condition with the removal of conifer and the introduction of appropriate grazing.

⁹ Listed in Annex I of the EU Habitat Directive and contributing to Bio-diversity 2020 outcome 1B: to 7,500 hectares of heathland re-creation.

Table 1: Annex I habitats that will be created by the proposals and their current condition, taken from individual habitat reports prepared for the 3rd UK Habitats Directive Reporting 2013.

Habitat	Current area of habitat in England (km2)	Trends in habitat cover	Notes on pressures and how they can be/ are being addressed.
Northern Atlantic wet heaths with <i>Erica tetralix</i> .	250	Stable in the long (1994-2012), and short term (2001-2012).	<p>The proportion of lowland heathlands in England is less than 10% of the total resource but this habitat type is rich in specialist and rare species and it is important to halt further fragmentation and losses.</p> <p>Continuous losses of wet heathlands (upland and lowland) have taken place over decades by improving areas of heathlands (to arable or improved grassland) and changing vegetation by drainage or excessive burning.</p> <p>A lack of appropriate grazing (which provides a diverse microstructure) is one of the main reasons for sites to be considered in unfavourable condition. In the lowlands under-grazing is a problem across most lowland heathlands (Lake <i>et al.</i>, 2001) rather than over-grazing (a cause of unfavourable conditions in the uplands).</p> <p>Wet heathlands in the uplands and lowlands have been planted with conifers. This pressure is now reducing, with plantations being cleared in some areas to re-establish heathland. However, in some areas self-seeding conifers still present a problem (Farrell, 1993; Hewins <i>et al.</i>, 2007).</p> <p>There is evidence that wet heathlands outside designated sites are not doing that well: none was found in favourable condition in a sample survey of lowland heathlands (Hewins <i>et al.</i>, 2007).</p>

Habitat	Current area of habitat in England (km2)	Trends in habitat cover	Notes on pressures and how they can be/ are being addressed.
Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i> .	4	Stable in the long (1994-2012), and short term (2001-2012).	<p>A lack of appropriate grazing which provides a diverse microstructure is one of the main reasons for sites to be considered in unfavourable condition. This is a problem across most lowland heathlands.</p> <p>Many of the sites in Dorset where <i>E. ciliaris</i> formally occurred were planted with conifers. This pressure is now reducing, with plantations being cleared in some areas to re-establish heathland. However, in some areas self-seeding conifers still present a problem (Farrell, 1993; Hewins <i>et al.</i> 2007).</p>
European dry heaths	3,200	Decline of up to 1% per year in the long term (1989 - 2012), but stable in the short term (2001 -2012).	<p>Lowland dry heathlands have suffered from loss and fragmentation, but the proportion of lowland heathlands in England is less than 10% of the total resource. However, as this habitat type is rich in specialist and rare species it is important to halt further fragmentation and losses.</p> <p>A lack of appropriate grazing which provides a diverse microstructure is one of the main reasons for sites to be considered in unfavourable condition. Under-grazing is a problem across most lowland heathlands (Lake <i>et al.</i> 2001). Dry heathlands in the uplands and lowlands have been planted with conifers. This pressure is now reducing, with plantations being cleared in some areas to re-establish heathland. However, in some areas self-seeding conifers still present a problem (Farrell, 1993; Hewins <i>et al.</i> 2007).</p>
Depressions on peat substrates of the <i>Rhynchosporion</i> .	4.28	Decline of up to 1% a year in the long term (1989 -2012), but stable in the short term (2001-2012).	Currently forested areas would ideally be clear felled and restored to open wetland habitat. There remains a threat that such sites will be replanted, including SSSI/SAC, as forestry policy may be misinterpreted by local staff.

- 10.57 The value of the proposals to benefit these high value habitats is evidenced by the close proximity of sites awarded national and international designation due to the quality of their open habitat. The proposal areas will extend and buffer and in some instances link sites with such designations.
- 10.58 As the consultation responses to the ES note, from NE and RSPB, the proposals will restore habitat for internationally rare animals such as smooth snake and sand lizard (listed on Annex IV of the EC Habitats and Species Directive) and Dartford warbler, nightjar and woodlark (birds listed in Annex I of the EC Birds Directive).
- 10.59 When the potential impacts on these species groups are considered (see paragraphs 10.1.3.5 and 10.1.3.6), FS agree with the ES's conclusion, that the overall population benefits for heathland species that will be delivered through the habitat change are likely to outweigh any localised negative impacts.
- 10.60 The ES notes the value of bare ground, scrub and tree retentions as part of a mosaic of habitats, and this is also apparent in the need for appropriate grazing to establish a beneficial micro-structure that will maximise biodiversity. To ensure the proposals deliver the positive outcomes anticipated a condition of consent will be that a heathland management plan is prepared. This will implement the mosaic approach¹⁰ to habitat management advocated by Natural England, ensuring the variation in structure is created.
- 10.61 Because plantation woodland habitat is found over the project area and will remain in the area surrounding the areas of restoration the EcIA concluded that the habitats in the restoration areas were of site level ecological value, i.e., its value was limited but it did contribute to the site's overall ecological function, as a result the impact was likely to be limited.
- 10.62 FS agree with this but note that the plantation forest is not without ecological merit, providing habitat for certain birds and bats and in many areas provides conditions which benefit heathland species. As the proportion of plantation forest diminishes so the value of the remaining plantation forest will increase so further deforestation in the future is likely to have an increasing negative impact and require further EIA assessment.
- 10.63 At this stage, when areas of plantation forest remain in the immediate area, this seems to be inappropriate, especially given the proximity to sites of national and internal sites due to the quality of their open habitat and the species they support. All the felling areas will extend and buffer and in some instances link sites with this designation.

¹⁰ Mosaic Approach – Managing habitats for species guides

<http://publications.naturalengland.org.uk/publication/6415972705501184?category=6074729802760192>

- 10.64 While FS have concluded the proposals will have a positive impact on habitats a condition of consent will require that the management principles and practice are documented and these are followed to ensure the anticipated benefits are realised. This document will detail how scrub and tree encroachment, brash and heath vegetation will be managed, bare ground created, and confirm that the mosaic approach to managing habitats will be adopted and should make reference to the OSA procedure to ensure the management practices are appropriate to the location (see conditions **(C)** and **(D)** in section 12).

Invertebrates

- 10.65 FS agree with the findings of the ES. It is also noted that the impacts of tree felling (while not significant) would take place regardless of whether the heathland was restored. Consequently the project's only impact on invertebrates will be the positive change to increase the ideal habitat for invertebrate species.
- 10.66 While the proposals are expected to have a positive impact a condition of consent will be the preparation of and adherence to management principles for open habitat (required by condition **(C)**) which includes provision to ensure bare ground is periodically created to benefit invertebrates reliant on this situation. This is advocated by Natural England's mosaic approach to managing lowland heathland.

Badgers

- 10.67 FS agree with the conclusions of EcIA with regard to badgers. These animals are protected under the Protection of Badgers Act 1992. As a result land managers are expected to adhere to the guidelines for good practice and where necessary obtain a licence for their work from Natural England. An assessment for badger setts is part of the FE's OSA process.
- 10.68 FS note that the impacts associated with tree felling would occur irrespective of the heathland restoration because the trees would be felled as part of a normal cycle of clear-felling and replanting. FS also note that the OSA procedures will check for badgers. While the OSA procedure is expected as part of this project it is not a legal requirement and continued compliance with the OSA procedure (set out in Appendix (2)) has been formalised as condition of consent (see condition **(E)** in section 12).
- 10.69 FS expect the proposals to be undertaken in compliance with UKFS requirements which include adhering to the legislation which protects certain species. This would include the Protection of Badgers Act 1992 and consequently adherence with the [Forest Practice Guidelines on Forest Operations and Badger Setts](#). Failure to comply with this guidance and the regulations can result in sanctions. Compliance with the UKFS is expected as part of the proposals and has been formalised as a condition of the EIA consent (condition **(F)**).

Bats

- 10.70 FS accept the conclusions drawn by the ES on bats but consider that mitigation is required to minimise the adverse impacts on these protected species.
- 10.71 Bats use woodland in many different ways – summarised in Table 2. They are protected species and principal species listed under section 41 of the NERC Act 2006 and the impact on them warrants careful particular attention.

Table 2: Habitat preferences for bat species listed in the biological records for the Purbeck forest blocks (and national population trends).

Species	Woodland specialist?	Tree roosts	Foraging preference	Population trends (based on National Bat Monitoring Programme data at 2012)
Noctule <i>Nyctalus noctula</i>	Yes	Favoured cavities (woodpecker holes and rot holes)	Open habitat.	Stable
Brown long-eared bat <i>Plecotus auritus</i>	Yes	Some use (can use cavities low on trees)	Woodland interior / closed / edge habitat. Often gleaning insects from the surface of foliage particularly in deciduous woodland.	Stable
Natterer's bat <i>Myotis nattereri</i>	Yes	Some use	Woodland interior / closed / edge / open habitat. Often gleaning insects from the surface of foliage.	Positive trend
Whiskered / Brandt's Myotis <i>Myotis mystacinus</i> / <i>Myotis brandtii</i>		Some use	Edge habitat	Stable
Common pipistrelle <i>Pipistrellus pipistrellus</i>		Occasional use	Edge habitat	Positive trend

Species	Woodland specialist?	Tree roosts	Foraging preference	Population trends (based on National Bat Monitoring Programme data at 2012)
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>		Occasional use	Edge habitat	Stable
Nathusius' pipistrelle <i>Pipistrellus nathusii</i>		Occasional use	Edge habitat	Insufficient data
Serotine <i>Eptesicus serotinus</i>		No use	Open habitat	Stable

Sources: Forestry Commission. (2005) *Woodland Management for Bats*. Forestry Commission and the [Summary Results of the National Bat Monitoring Programme](#) at 2012.

- 10.72 The table indicates some of the species present may use trees as roosting sites. With regards to this FS accept the ES's conclusion that potential for roosts is limited. This is because most of the plantation trees are too young or too small to have developed roosting features. Appendix 5 shows, bar a small area (in the Gore Heath forest block), the areas subject to the felling proposals are less than 80 years in age, a threshold which helps indicate when roosting features become more common). However, FS recognise there is potential for roosting and that bat boxes are also located in some of the forest blocks.
- 10.73 Table 2 includes Serotine (*Eptesicus serotinus*) which is not listed in the ES but is mentioned in the ecological assessment that supports the ES. This species is frequently observed in the Purbeck forest blocks (though no records of this species were found in association with the bat boxes). This species feeds along tree lines or woodland edges but roosts in buildings and its presence reiterates the value of the forest for foraging and commuting.
- 10.74 While the proposals will not eradicate the commuting and foraging habitat (the anticipated increase in invertebrates may improve the food source for bats) the potential impact on foraging and commuting in the Affpuddle and Purbeck forest blocks is of concern. The value of commuting habitat is identified in actions to protect bats, and management advice for bats advises "woodlands cannot be viewed in isolation, as connections to the wider landscape are crucial for most bat species" (FC, 2005).

- 10.75 FS note that the impact of tree felling would occur regardless of whether heath is restored after felling or the land is replanted with trees. As a result the impacts of tree felling are not specifically due to the deforestation project (apart from in the area to be felled that are not yet mature).
- 10.76 All these bats are listed on Annex IV of the EC Habitats and Species Directive (i.e., species of EC interest in need of strict protection) and noctule, soprano pipistrelle and brown long-eared bat are species of principal importance listed under section 41 of the NERC Act 2006 with a range of actions for their protection. A summary of the high priority action is provided in table 3.

Table 3: Summary of high priority actions identified for NERC Act 2006 bat species listed in the biological records for the Purbeck forest blocks.

Species	Summary of relevant High priority NERC Action
<p>Noctule <i>Nyctalus noctula</i></p>	<ul style="list-style-type: none"> • Proactive protection of all roosts (trees and buildings) is needed including accurate recording on local and national recording schemes and local authority tree records so they are flagged up during planning searches/tree safety routines. Mitigation for loss of tree (and other) roosts needs to be effective to maintain populations. Survey should also be conducted before tree-felling, to look for roosts and potential roosts. • Continue and enhance existing monitoring scheme (via the National Bat Monitoring Programme (NBMP)) in the long term to provide robust population trends. Survey for new roosts is required throughout its range to better understand the distribution of this species.
<p>Brown long-eared bat <i>Plecotus auritus</i></p>	<ul style="list-style-type: none"> • Ensure continuation of existing monitoring to provide robust, long-term population trends. • Protection of critical resources at the landscape level through the protection of all types of roosts and important foraging and commuting routes. This requires provision of appropriate landscape features, which encompass habitats which are not UK priority habitats but are important for connectivity and foraging resources.
<p>Soprano pipistrelle <i>Pipistrellus pygmaeus</i></p>	<ul style="list-style-type: none"> • Continue to monitor populations. • Ensure all known roosts are protected via legislation and policy. This should include surveys to identify new roosts and the provision of appropriate advice. Appropriate and proportionate mitigation must be implemented where required with subsequent monitoring of compliance and effectiveness. • Promote the creation, expansion and improvement of key habitats including wetland and features such as hedgerows and woodland edges. All habitat-based action should ensure maximal foraging opportunities (e.g. species rich hedgerows and diverse wetlands). Ensure adequate consideration of a landscape approach. • The species utilises more habitats than those listed and delivery through habitats alone will not deliver the entirety of conservation actions required for the soprano pipistrelle. • Research to understand the effectiveness of mitigation proposed and on specific management recommendations. • Research for suggestions to increase extent and quality of

Species	Summary of relevant High priority NERC Action
	habitat.

- 10.77 FS note that some of these conditions identify the value of woodland (including non-priority woodland) as foraging or commuting habitat but consider these actions can be met with conditions to the consent: sites will also be assessed for roosts before felling operations as part of the OSA and any roosts (including trees with bat boxes) will need to be retained along with a 'halo' of surrounding tree to provide shelter and, as European Protected Species, it will be necessary to follow the Good Practice guidance to safeguard these species.
- 10.78 In conclusion FS have determined that the impact on bats should not prevent EIA consent. In making this decision FS have considered the points made by the ES that the phasing of felling over a ten year period will help to reduce the immediate impact of removing tree cover. FS also note that Natural England's consultation response raised no concerns about the impacts on bats and understand that the OSA procedure will ensure that bat roosts are identified so suitable mitigation can be applied. Compliance with the OSA procedure is a condition of consent - condition (**E**).
- 10.79 Bats are European protected species, protected legally under the Conservation of Species and Habitats Regulations 2010 and compliance with the relevant [Good Practice](#) to safeguard these species is expected or a licence for the work must be obtained from Natural England. FS consider this provides mitigation against the significant adverse impacts¹¹. Because bats are already protected legally no conditions have been applied in regard to compliance with Good Practice and legislation. However, FS understand that information on bat populations and the effectiveness of mitigation measures is scarce. To address this and ensure measures can be taken to address any negative impacts, should it become apparent the mitigation measures are not working, the regular monitoring of the bat population has been made a condition of consent. The results of this will be reported back to the National Bat Monitoring Programme (NBMP) and FS (condition (**G**)) and will be reviewed after five years so that further phases of felling are, if necessary, modified to further bats and their commuting routes.

¹¹ Compliance with the UKFS which includes requirements to comply with legal controls is a condition of consent – condition (**F**).

Birds

- 10.80 FS consider that the proposals' overall effect on birds will be positive through the habitats that will be created for species of national and international importance. These positive impacts are considered to outweigh the negative impacts on woodland species, principally crossbill, for which plentiful conifer forest habitat will remain. Mitigation measures are proposed, including measures to safeguard raptors that may nest in the woodland. Beyond this the protection afforded all wild birds under the Wildlife and Countryside Act 1981 will minimise the negative impact of forest operations (which would take place under a scenario of felling and restocking).
- 10.81 In considering the impact on birds FS recognise that all forestry operations pose a risk to birds and that tree felling would take place at economic maturity and the negative impact associated with the tree felling is therefore not due specifically to the restoration of heathland. All wild birds are afforded protection under the Wildlife and Countryside Act 1981 and in the case of works on the PFE the OSA procedure helps to safeguard nesting birds. As a result FS do not consider this impact relevant to the decision to award consent for the deforestation.
- 10.82 In taking a decision whether to grant consent FS have considered whether the positive impacts outweigh the negative impacts. The main negative impacts will be the loss of nesting and feeding habitat for crossbill and the potential impact on raptors.
- 10.83 Common crossbill (*Loxia curvirostra*) are listed in schedule I of the Wildlife and Countryside Act 1981, which elevates the protection afforded to them birds above the standard protection¹² to cover intentional or reckless disturbance while on or near an 'active'¹³ nest. However, in the context of these proposals this control is again most relevant to the harvesting which would ultimately happen regardless of the deforestation for heathland restoration.
- 10.84 FS acknowledge that a negative impact on common crossbill is anticipated at a site level and agree with this conclusion, given the proposals account for only 9% of the area of conifer plantation across the forest blocks and the proposals will not therefore eradicate habitat for this species.

¹² Intentionally kill, injure or take any wild bird, take, damage or destroy the nest of any wild bird whilst it is in use or being built, or take or destroy the egg of any wild bird.

¹³ While nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

- 10.85 The possible impact on raptor species is noted but the proposals are not anticipated to result in a shortage of nesting sites and may, for hobby (*Falco subbuteo*), increase the open space suitable for hunting. Honey buzzard (*Pernis apivorus*) is a species listed in Annex I of the EC Birds Directive that is scarce in the UK and found in the wider area around the forest blocks which feeds in young and mature pine – habitats which will remain within the forest blocks (see Appendix 5). While these species are protected by law, compliance with the guidance contained within Forestry Commission Bulletin 115: Ecology and Conservation of Raptors in Forests will be followed to safeguard nest sites (see condition (H) in section 12).
- 10.86 Despite the negative impacts the proposals have the potential for a significant positive impact at a wider local level for a great range of birds of conservation concern, particularly nightjar, Dartford warbler, and woodlark.
- 10.87 In particular, nightjar is a species of principal importance in England listed under section 41 of the Natural Environment and Communities Act 2006. An urgent action identified by the Biodiversity 2020 Terrestrial Biodiversity Group for the recovery of nightjar is to:
- “Initiate a strategic approach to the large-scale re-creation of lowland heathland, agreed by the main conservation agencies and organisations.”*
- 10.88 FS consider the proposals to be consistent with this action for nightjar.
- 10.89 The proposals’ proximity to areas within the SPA designations, particularly the Dorset Heathland SPA, also indicates their value to birds because the proposals will provide further habitat for the species that led to the designation. (FS acknowledge this may be limited to Dartford warbler, nightjar and woodlark since the ecological assessment found no records to indicate the presence of merlin and hen harrier, known to overwinter in the Dorset Heath SPA (see paragraph 10.10), in the forest blocks. The proposals are not anticipated to affect these species which nest in dense ground vegetation such as heath but do not have breeding populations in the SPA¹⁴).
- 10.90 On balance FS find that the EIA indicates the proposals will have an overall positive impact on birds. In addition to the retention of nesting and feeding habitat for species that need plantation habitat, the OSA procedure will ensure that nests are identified and protected from the influence of forest operations. Compliance with the OSA procedure outlined in Appendix 2 has been formalised as a condition of consent (condition E). FS again note that all birds are afforded legal protection under the Wildlife and Countryside Act 1981 and have therefore applied no further conditions to protect birds during tree felling.

¹⁴ Both species breed on upland heath and overwinter in the lowlands.

- 10.91 The ecological assessment that supports the ES also identified records for peregrine (*Falco peregrinus*) and kingfisher (*Alcedo atthis*) which are also species listed on Annex I of the EC Birds Directive. These species were not considered to be affected by the proposals (though the site survey still took account of their potential presence). FS agree with this opinion: kingfisher are widespread in southern England and no removal of semi-natural habitat adjoining water courses is proposed as part of the proposals, while the proposals could on the other hand potentially increase hunting areas for peregrine.
- 10.92 There is the potential for recreational use of the proposal areas to disturb ground nesting birds. The ES addresses this with recommendations for mitigation. Information on recreational use indicates the majority of users (80%) stick to pathways (see paragraph 10.133) and as a result the main risk appears to be from dogs roaming away from the track ways. FE are already committed to a programme of responsible dog walking but to help ensure dogs do not undermine the positive impacts the proposals are expected to deliver, a condition of consent will be for FE to use signage to advise visitors of the problems of disturbance to ground nesting birds in the restoration areas (condition **(I)**).

Reptiles

- 10.93 FS agree with the conclusions of the ES that the proposals will have a positive impact on reptiles. To ensure the positive impacts anticipated are delivered and that any negative impacts are minimised, conditions have been applied to the consent.
- 10.94 Reptiles use a variety of habitats. They particularly benefit from dry and open areas where they are able to bask. Lowland heath provides this along with dense ground vegetation which provides shade and shelter. As a result, as the ES indicates, lowland heathland is a key habitat for reptiles.
- 10.95 The value of heath habitat for reptiles is supported by the information provided in interim annual reports on Forest Reptile Habitat Use in Wareham¹⁵, the latest being from 2012: (Jofré, 2012). While the surveys detailed in these reports consider reptiles' use of woodland blocks the results indicate the potential for reptiles to inhabit woodland blocks varies depending on the extent of canopy cover. The trends in the survey data suggest that canopy cover below 60-65%, is preferred. Where canopy cover exceeds this level the amount of light reaching the ground is reduced to a point that causes ground vegetation to die back.

¹⁵ Part of a longer-term (five year) Forestry Commission project to:

1. Investigate how plantations of different ages and structure are used by the six native reptile species and how their use changes over time as a result of forestry management regimes.
2. Establish migration patterns between plantations.

- 10.96 All six native species of reptile were found in the proposal area: Smooth snake (*Coronella austriaca*), Grass snake (*Natrix natrix*), Slow-worm (*Anguis fragilis*), Sand lizard (*Lacerta agilis*), Common lizard (*Zootoca vivipara*) and Adder (*Vipera berus*).
- 10.97 All of these species are listed as species of Principal Importance in England under section 41 of the NERC Act 2006. The urgent and high priority actions for the recovery of these species, as identified by the Biodiversity 2020 Terrestrial Biodiversity Group, include habitat creation and management that provides suitable habitat features within a highly connected landscape (see table 4). Sand lizard is the only exception to this where enhancing and creating connectivity is a medium priority. FS find the proposals meet the actions for these species and therefore should have a positive impact on recovery of these species.

Table 4: High and urgent priority actions recommended for the recovery of reptiles of principal importance in England in England under section 41 of the NERC Act 2006

Action	Species
Ensure habitat creation and management that provides suitable habitat features within a highly connected landscape.	Slow Worm Grass Snake Common Lizard Adder (urgent)
Ensure conservation status is monitored, and information is sent to land managers and decision makers.	Smooth Snake Sand Lizard Adder
Improve the condition and connectivity of habitat at occupied sites, taking into account specific habitat requirements. Improve habitat condition at currently unoccupied sites within colonisation range and at site selected for reintroduction.	Smooth Snake
Maintain habitat condition at sand lizard sites, including key features such as bare sand.	Sand Lizard
Research to diagnose reasons for decline and to trial solutions.	Adder

- 10.98 The benefit of habitat connectivity is also identified in the ecological assessment undertaken for the EIA and in Jofré (2012). The former notes the proposals will facilitate movement between meta-populations while the latter mentions the reliance of local populations of smooth snake to colonise new areas of suitable habitat.
- 10.99 All these reptiles are protected from killing and injuring under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and, as the ES notes, smooth snake and sand lizard are also European Protected Species. They are also listed in Annex IV of the EC Habitats and Species Directive as species of interest to the European Community in need of strict protection.

- 10.100 The Individual [Species Reports for the 3rd UK Habitats Directive Reporting in 2013](#) found the long-term population trends for smooth snake and sand lizard to be stable at best: the creation of lowland heath being cited as a positive factor for smooth snake which can be counteracted by fire and grazing. This indicated the need to ensure grazing and controlled burning is appropriate (a point FS have sought to assure through conditions **(C)** and **(D)** of the EIA consent).
- 10.101 The legislation protecting these reptiles does not prohibit work that might affect them but requires that their protection is given due attention. The OSA process will ensure this, as sites will be assessed for the presence of reptiles prior to felling operations to ensure they are afforded protection during the work where necessary measures are taken to safeguard their breeding sites. In the case of smooth snake and sand lizard [the Good Practice](#) for forest operations must be followed to mitigate negative impacts of tree felling. Where the measures to safeguard the species cannot be followed a licence will be needed from Natural England. In light of these legal controls no conditions in relation to this have been applied to the EIA consent.
- 10.102 In light of the overall benefit of the proposals anticipated for reptiles, and the legal controls that apply, FS have concluded the impact on reptiles is not sufficient to prevent consent being given. The impact of felling proposals on reptiles is considered during the OSA and this procedure has been made a condition of consent (condition **(E)**). Because the tree felling would take place under a regime of tree felling and replanting, the impacts associated with the tree felling are not therefore unique to heathland restoration and this has been a further consideration in reaching our conclusion.
- 10.103 These reptiles require a range of conditions within heathland. For example, sand lizard like dense heather and use sheltered bare ground to lay eggs. This requirement for bare sand is evidenced as a high priority action for this species (see table 4). Adder is known to prefer habitat with a varied structure and height, including scrub due to the shelter it provides. Conditions **(C)** and **(D)** will ensure these conditions are provided to maximise the positive conditions expected for reptiles.

Dormice

- 10.104 The proposals' potential impact on Dormice (*Muscardinus avellanarius*) was scoped out of the ES because of the limited value for this species (due to a lack of under-storey and food). Despite drawing this conclusion it should be noted dormice can be found in wider habitats than those typically associated with the species (Moody et al. (2011), Trout (2002) and Bright, Morris, & Mitchell-Jones (2006)). This point is noted in the ecological report that supports the ES. This report also reported some records of dormice within (Puddletown) and round the restoration areas in Affpuddle, Moreton and Hethfelton. They may also be present in the other forest blocks.

- 10.105 While tree removal could have an impact on dormice living amongst the trees they are legally protected species (and the presence of boxes and dormice areas will be considered as part of the OSA procedure prior to felling work). As a consequence of their legal protection the [Good Practice to safeguard dormice](#) will need to be followed (or a licence obtained from Natural England). In light of this control, and overall that the habitat is not optimal for this species, FS have concluded the proposals are unlikely to have a significant impact on dormice. Condition (E) of the EIA consent will ensure the OSA procedure is followed and this will account for the presence of dormice while compliance with good practice is expected (and required under UKFS) to ensure the works remain within the law.

Landscape and Visual Amenity

- 10.106 One of the forest blocks (Purbeck) is within the Dorset Area of Outstanding Natural Beauty (AONB), a designation that protects nationally important landscape(s) of distinctive and outstanding character. While the other blocks are also within close proximity to the AONB, it is also implicit in the European Landscape Convention that all landscapes are important, whether officially recognised through formal designations or not. The UKFS includes a set of [landscape guidelines](#) which highlight how important forests and woodlands are as visual elements in the landscape that change over time.
- 10.107 With these points in mind the landscape and visual impacts of changing land use from forest to heath were considered in the ES by a Landscape and Visual Impact Assessment (LVIA). LVIA provides a consistent and recognised method for assessing the effects of landscape change and was undertaken following a well-established method (set out in Guidelines for Landscape and Visual Impact Assessment, 2nd and 3rd Edition).
- 10.108 The LVIA assessed the proposals' predicted impacts on the landscape and visual impact, from important vantage points for each forest block. Impacts were considered in the long- and short-term against a baseline established from an existing assessment of landscape character and current views for the project areas.

Landscape

- 10.109 The assessment of predicted landscape impact concluded that the proposals would have a positive long term impact. Existing heathland would be expanded which would reinforce the characteristics that make up the current landscape: a mixture of plantation forest and heath
- 10.110 The LVIA concluded that the proposals in the Purbeck forest block were compatible with the special qualities of the landscape outlined in the [AONB Management Plan](#) and the creation of heath, with its open character, was considered to be a positive impact.

Visual Amenity

- 10.111 Assessments of the proposals' visual impact were made from key vantage points with views of the proposal areas. Overall the assessment found that the design of the proposals would have a limited impact on the visual amenity because:
- Views over a mosaic of open heath and conifer plantation would remain.
 - Where views would be opened up they were generally either limited to glimpses for travellers or were in the context of a wider panorama which reduced the scale of the impact.
 - Urban development would remain screened by tree cover.
- 10.112 However, in each forest block significant (moderate to major) visual impacts were identified:
- In the short-term the tree felling and heath restoration works would have a negative impact.
 - In the long-term as a consequence of opening up views by converting plantation to heath, there would be a positive impact.
- 10.113 The LVIA concluded that no mitigation was required due to the good design and mitigation built in to the FDP through adherence to both the UKFS guidelines for forests and landscape and the good practice for forest design planning ([Forest Design Planning – A Guide to Good Practice](#)).

Consultation Responses

- 10.114 Only one consultation response considered the ES's conclusions with regards to landscape. This was from Natural England (NE) and stated general agreement with the conclusions of the ES. However, NE questioned why moderate/major short-term impacts on recreational users had been identified as a consequence of heathland restoration when continued management of the land for forestry would have the same impact because tree felling would still be necessary. On this basis NE concluded that tree felling should not be reported as a short-term negative impact because it would happen anyway.
- 10.115 FS consider that the ES provides a comprehensive assessment of the proposals' impacts and it is appropriate to look at the tree felling as an impact associated with the deforestation to restore the open habitat as this is forms part of the proposals. FS have therefore decided the ES makes a valid assessment.
- 10.116 However, FS also agree with NE's observation that the short-term visual impact is the same, irrespective of whether the land is managed as heath or forest. This point is made in paragraph 5.77 of the ES and FS have

accounted for this (by discounting the short-term impacts from our EIA determination).

Conclusions and Mitigation

- 10.117 FS consider the ES provides a comprehensive and objective assessment of the proposals' landscape and visual impacts and accept its conclusions. FS agree that long-term negative impacts have been avoided by applying the UKFS guidelines and following good practice and while significant short-term impacts have also been identified these are connected to the harvesting of the trees. This is an activity which would occur regardless of whether the land was reverted to heath and so is not a factor which has influenced the EIA determination.
- 10.118 As a result of these points FS have concluded there is no basis to refuse consent for the proposals on the grounds of landscape and visual amenity and that conditions are not necessary to mitigate the proposals' impacts on the landscape.

Land Use and Socio-Economics

- 10.119 The ES considered several aspects of the proposals' potential social and economic impacts which are addressed in the following sections. The ES accounted for issues identified during the FDP consultation in July 2010 with the exception of the following:
- Access land: How the proposals might affect the land's access status under the Countryside and Rights of Way Act 2000 (CRoW): converting woodland to open land can result in access rights. Because the review of land defined as access land under CRoW is Natural England's responsibility and within the project's control this was not considered by the ES. FS note that where FE have freehold of the proposal area the land has already been dedicated for public access. As a result the change to open habitat would not affect the land's status in relation to CRoW access. The leasehold land has not been dedicated but the first objective of the FDP remains:

"To develop woodlands that provide opportunities for informal and formal public recreation, especially in areas on the urban fringe aiming to divert pressure away from more sensitive habitats."

FS do not consider the conversion from woodland to open habitat will therefore affect the ability of the public to access the land.
 - Deer management: The effect of changing the landscape on deer use needs to be considered and cross-boundary management implications need to be included. The ES reported that there was no evidence that heathland restoration will increase the local deer population, so this issue is not covered in the assessment. Reference to the comments gathered for the FDP explains that concern is about the change of land use

displacing deer into other areas where they become a nuisance. In respect of this FE have a deer management plan and deer control will not stop as a result of these proposals.

Change in land use

10.120 The ES considered the impacts of changing land use from forestry to heathland at local (the Dorset Heath National Character Area (NCA)), county and national levels. The outcomes are summarised in table 5.

Table 5: Proposals impacts of changing land use from forestry to heathland.

	Local (Dorset Heath NCA)	County	National
Reduction in woodland	1.4%	0.7%	0.02%
Increase in lowland heath	5.8%	5.9%	0.34%

10.121 Based on this analysis, the ES concluded the proposals were of negligible significance for woodland at all levels but minor positive significance for lowland heathland at local and county level and with a negligible impact at the national scale.

10.122 The ES looked at the possibility for wider woodland creation to offset the loss of forest concluding that there are opportunities for this. The ES explained that the creation of 120 hectares of woodland is an aspiration of the Wild Purbeck NIA which, if achieved, would offset ~60% of the woodland loss. Beyond this, at the County level woodland creation at a rate of 5.7 hectares per year in Dorset would be required to totally offset the woodland reverted to heath.

10.123 A further consideration made in the ES was about the public's perceptions of increasing the extent of open habitat in the Purbeck forest blocks. With regard to this the ES reported that FDP consultation in July 2010 did not identify any major concerns about the proposals having an adverse impact on the amenity. After considering all of these factors the ES concluded the cumulative impact of land use change was of negligible significance.

Timber Production and Economics

10.124 The ES determined that the proposals would result in the permanent long-term reduction of productive forest and in some instances may result in the premature felling of the timber crop. In relation to these negative effects the ES noted that *Dothistroma* blight, which is a major plant health concern for Corsican pine - the main timber species in the Purbeck forest blocks, will reduce the timber crop's productivity, reducing these negative impacts.

- 10.125 In addition, the ES's analysis of the felling programme found that 84% of the felling will be at maturity (>40 years) across the blocks, so the timber and revenue production would be maximised for the most part. Further offsets to loss of timber production may be offset through incomes from grazing tenancies and grant payment under agri-environmental options to maintaining the open habitat.
- 10.126 On the basis of these impacts on timber production the ES considered the economic impacts of the proposals across three areas detailed in the following sections.

Direct employment in woodland management and operations

- 10.127 The ES explained there are peaks in direct forestry work during initial establishment, thinning and then final harvesting. The ES worked on the basis that site preparation and planting across the 195 hectare project area accounted for 2.9 standard labour years and that timber harvesting and subsequent haulage would require 12.3 labour years. The ES compared this labour requirement against that required to manage and maintain the heathland habitat (0.65 full time equivalent on an ongoing basis) but struggled to make a meaningful comparison over the 15 year project period. In the context of local employment in the land use and fisheries sector the ES concluded that, given the sporadic nature of the forestry work, the proposals would have a negligible impact.

Indirect employment in the local community

- 10.128 On the basis of a 400m³ per hectare yield the proposals would reduce timber production across the forest blocks by up to 72,000m³. The ES considered that the impact of this reduction would be an insignificant impact in the context of national and global trade of timber.

Overall viability of the Purbeck Forest Blocks

- 10.129 The ES explained that the viability of the heathland restoration depends on the period assessed. In the short-term the absence of restocking costs results in a minor positive impact. The ES made no conclusion about the long-term impact due to the uncertainties associated with the long-term predictions. For example, the ES observes that grant support to manage heathland may not continue into the long-term future. Nevertheless, the ES expresses the option that the impact on long term viability is likely to be negative but in the context of the continuing costs and income from remaining areas of forestry it was unlikely to be significant.

Plant health

- 10.130 The ES found the proposals would have a minor negative impact because the restoration of heath could restrict the type of tree species planted in the surrounding woodland blocks to address plant health issues. This was because suitable species for planting were likely to regenerate on open sites.

Livestock Grazing

- 10.131 The ES explained that the additional 55 cattle expected to graze the restored heathland accounted for less than 1% of livestock at the local (NCA) and County levels. As a result any impact associated with grazing was considered to be of negligible significance.

Recreation

- 10.132 Because access is already present and will remain over the proposal areas the ES assessed only whether the change from woodland to heathland would have an impact on recreation. The ES referred to European research which found a varied structure within woodland is generally considered positively, with “moderate” tree cover preferred to extremes. The ES also cited UK research that indicates the recreational value of lowland heath is not likely to be less than woodland and could be higher.
- 10.133 The level and type of recreational use was also considered. The degree of use was limited by proximity to residential properties and available car parking. The principal use was by dog walkers and most users visited sites throughout the year. 80% of visitors stuck to tracks.
- 10.134 The ES ultimately drew no conclusion as to whether the proposals might affect the amount and type of recreational use (due to a lack of evidence) but identified that grazing of the heathland might push recreational use into the remaining areas of forest as visitors sought to avoid conflict between livestock and dogs. This impact was considered to be of minor significance.

Wildfire

- 10.135 Overall the ES considered the proposals’ impact on wildfire risk to be of moderate negative significance. In reaching this conclusion the ES considered the proposals’ possible impacts on wildfire risk in terms of three issues:
- **Recreational use:** The ES reported that the majority of the new heathland was in forest blocks with varying levels of recreation use. As has been seen the predominant use is dog walking (paragraph 10.133). Higher risk activities like barbequing and camping are prohibited by bylaws. There was no evidence that recreational use will change, and as a consequence recreational use was not considered to alter the risk of wildfire.

- **Location and size of areas:** The location of heathland in relation to other areas of wildfire risk, fire breaks and public infrastructure was considered in the forest blocks where the restoration of heath is most extensive. It was noted that the proposals did not adjoin the Wytch Farm oil processing facility and were adjacent to only minor roads, though in some of the areas were crossed by access tracks and trials. Across all the forest blocks a network of forest rides are managed as fire breaks and this will continue under the proposals.
- **Type of vegetation that would be established:** The ES explains that the restoration of heath would result in wider cover of more flammable vegetation type but that the ride network would continue to be managed as in some instances these provided firebreaks. The heath would be managed under a programme of controlled burning, which would help reduce the fuel load.

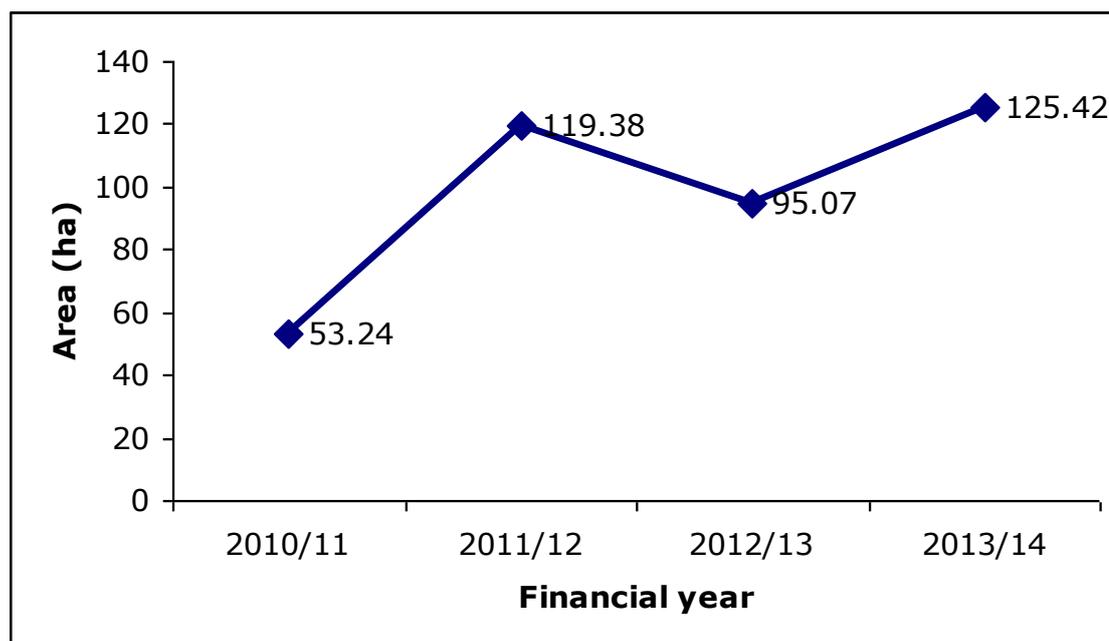
Consultation Responses

- 10.136 The only consultation response relevant to the socio-economic impact was from Dorset Fire and Rescue Service and related to managing wildfire risk and ensuring appropriate control. This is considered in the conclusions on wildfire (paragraph 10.155).

Conclusions and Mitigation

Change in land use

- 10.137 Based on the evidence provided in the ES (table 5) FS accept the conclusions that the impact on woodland is negligible while the impact on heathland is positive. This is to be expected as it supports the rationale to focus open habitat restoration on the PFE in the Dorset forest blocks.
- 10.138 With regards to the potential for wider woodland creation to offset the loss of forest the ES consider great caution is required in predicting future trends in woodland creation. FS do recognise, however, that the approach of taking into account wider trends in woodland creation to offset the loss of woodland for open habitat is consistent with the balancing mechanism set out in the Open Habitats Policy (see section 11). Since the OHP was published in March 2010 woodland creation in Dorset has been approved at a rate that exceeds the 5.7 hectares per year rate required to offset the woodland reverted to heath. However, it is unclear whether this trend will continue.

Chart 1: Woodland Creation in Dorset since April 2010

- 10.139 Within the Wild Purbeck NIA area 17.55 hectares of the targeted 120 hectares of woodland creation has so far been approved, indicating there is still considerable way to go to achieve the potential offsetting of 60% of the woodland loss within the NIA (though FS understand a further 60 hectares of woodland creation has been approved on the edge of the NIA and that the NIA Partnership have agreed to accept this as a contribution towards the NIA target for woodland creation).
- 10.140 The ES reported that the FDP consultation in July 2010 did not identify concerns at the loss of woodland, therefore the change of land use appears to be of low sensitivity. However, FS note that some stakeholders expressed concern at the loss of woodland and these have been considered in Appendix 4.
- 10.141 No concerns were raised about the loss of woodland during the 2013 consultation on the EIA and FDP felling proposals so FS agree that on balance the change of land use appears to be of low sensitivity at this time. However, FS recognise that as the area forest diminishes the value to people of what remains may increase. This may affect decisions about any further deforestation in the Purbeck forest blocks.
- 10.142 As it stands FS have determined that the current proposals represent an acceptable change of land use in the context of the woodland that remains in the forest blocks, wider county and nationally. The proposals' impacts on landscape have been considered (see paragraph 10.106) and timber production in the following two sections.

Direct employment in woodland management and operations

- 10.143 FS consider that a meaningful assessment of the labour impacts must be made over the period of a full timber crop rotation (at least 40 years) rather than the 15 year project period. This approach ensures the labour required at all stages of a forest's management is considered. On this basis, using the data on labour figures in the ES, FS found that management of a timber crop resulted in requirement for 15.2 labour years while maintenance of heath required a 26 full time equivalent (FTE) over a 40 year period (0.65 FTE x 40 years).
- 10.144 Based on this assessment the management of the heath appears to result in an increase in labour. This is expected as the maintenance of open heath is anticipated to have higher maintenance requirement and cost compared to woodland (for example, see the supporting evidence for the [Open Habitats Strategy on PFE](#)). However, FS have considered, like the ES, that in the context of local employment in the land use and fisheries sector this is still a negligible change in direct employment.

Indirect employment in the local community

- 10.145 FS agree with the ES's conclusion with regard to the impact on indirect employment. PFE sell timber parcels at open tender and there can be no guarantee who will buy them: the ES reports recent sales have been to merchants nationwide. On this basis local processing centres cannot rely on timber from the Purbeck forest blocks. Similarly they may be able to offset any reduction in local timber by sourcing timber from a wider area.
- 10.146 If processors were reliant on local timber FS note that the proposals account for a limited area of the plantation forest across the forest blocks (9%). Additionally FS recognise that the proposals account for a limited area of total woodland in the local area (see table 5) and that there is a trend of increasing woodland cover within the County (and nationally) (see chart 1 and table 9).

Overall viability

- 10.147 FS consider the viability of the proposals to be a matter for the applicant to address and have assumed, on the basis set out in this section, that the applicant has the means to support the proposals.
- 10.148 The evidence base for [PFE's Open Habitat Strategy](#) considered the costs associated with the restoration of open habitat and its subsequent maintenance. PFE's decision to take forward the proposals has therefore been made on an informed basis. In light of this FS consider that the proposals must be viable and note that EIA consent and felling permission does not compel the applicant to do the work. FS understand that the potential to take forward the proposals will depend on ongoing business

planning. If insufficient budget is available for the restoration work then a business decision may be made not to undertake all the deforestation.

- 10.149 With regards to this FS take the view that partial implementation of these proposals could equate to a change in the project assessed by the EIA but FS consider that, because the current assessment covers the maximum potential deforestation by the proposals, the consent decision and conditions would therefore apply even if only part of the deforestation were undertaken.
- 10.150 Finally FS note that the analysis of viability made in the ES quite reasonably focuses on the project's effect on viability. It does not account for the fact that FE is a national body with land across England, which has decided to focus its contribution to national objectives for open habitat restoration in Dorset (see the [Open Habitats strategy for the PFE](#)). As a result it is a question for FE as a whole to consider how the viability of the Purbeck forest blocks is ensured through business planning at a national level. For example, this may involve allocating funding from profitable parts of FE's portfolio to ensure the continued management of the Purbeck forest blocks. The viability of the PFE as a whole is a factor as much as that for the Purbeck forest block.

Plant health

- 10.151 Heathlands are particularly prone to colonisation by a range of tree species. As a consequence FS considered the plant health impact identified in the ES to be as much about how the open habitat is managed as the tree species that surround the heath. Further to this, the drive to use a wider range of tree species to address climate change and plant health risks means a far greater range of species could be planted than currently anticipated. As a result of these factors and the fact grazing will be used as a technique to manage the heath FS do not believe the restoration of heath can be considered a constraint on the selection of tree species to address plant health (and climate change).

Livestock Grazing

- 10.152 FC agrees with the conclusion drawn in the ES that the impact of livestock grazing is not significant. The impact livestock may have on recreational use of the sites is considered in paragraph 10.134 and through condition (I).

Recreation

- 10.153 FS accept the conclusions of the ES. Reference to the studies on public preferences cited in the ES does support a conclusion that a forest landscape composed of both trees and open spaces is much preferred (e.g.,

Garrod, 2002). As a result there is no reason to think the proposals will reduce recreational use, and note that the provision of access remains the FDP's first priority (see paragraph 10.119).

- 10.154 The ES advocated liaison with recreational users to ensure they understood the rationale for the change. Experience has shown that this can help foster greater acceptance of the changes in land use. FS understand that FE will undertake such liaison but to formalise this requirement and ensure users have opportunity to understand more about the restoration work it has been made a condition of consent (condition (I)).

Wildfire

- 10.155 FS agree with the conclusion drawn by the ES that the proposals will have a significant negative impact on the wildfire risk but this is insufficient reason not to grant consent. Key factor in this decision is that FE already manage a wildfire risk across the forest blocks and that this will continue along with liaison with the fire service.
- 10.156 The risk posed by the current forest is evident in the incidents of wildfire over the summer of 2013 and is documented in the information provided in the Vegetation Fire Risk Management: *Toolkit for Practitioners and Advisors*¹⁶ which notes both conifers and dwarf shrub heath are habitats with a high wildfire risk.
- 10.157 The consultation response from Dorset Fire and Rescue Service asked that the planning process for the heathland restoration was consistent with the guidance presented at the [Wildfire 2013 conference](#) (the forthcoming Practice Guide on Building Wildfire Resilience into Forest Management Planning) to ensure fire risk was considered and control measures were considered appropriately. They also requested that the availability of water supplies to support firefighting was considered in the context of the proposals.
- 10.158 FS consider wildfire an important issue, posing a threat to human life, animal welfare, infrastructure and assets. Climate change predictions anticipate an increase in the frequency and severity of summer droughts. An analysis of likely change in outdoor fire incidence suggests a 30-50% increase by the 2080s¹⁷.

¹⁶ [Vegetation Fire Risk \(2012\). Management: Toolkit for Practitioners and Advisors.](#)

¹⁷ Using the McArthur Forest Fire Danger Index (ensemble mean; medium emissions scenario) depending on country and region, with the highest risk experienced in the south of England. Source: [http://www.forestry.gov.uk/pdf/AFG121115-Wildfire-presentation.pdf/\\$FILE/AFG121115-Wildfire-presentation.pdf](http://www.forestry.gov.uk/pdf/AFG121115-Wildfire-presentation.pdf/$FILE/AFG121115-Wildfire-presentation.pdf)

10.159 To ensure this issue is addressed FS have assessed the scope of work currently taking place to address wildfire in the Purbeck forest blocks. These are summarised in Table 6.

Table 6: Work to address wildfire relevant to the Purbeck Forest Design Plan.

Ref.	“Workstream”	Notes	Current Status
(1)	Fire Management Mapping System for use by Dorset FRS to fight heathland fires across the NIA.	A standard Fire Map for use over the Wild Purbeck NIA (this has also been expanded to cover the whole of Dorset).	FE have completed their input into this and the information is now with Dorset County Council for incorporation in the system while Dorset Fire and Rescue Service are assessing how to access the data technically.
(2)	<ul style="list-style-type: none"> • Fire Risk Assessment Maps and List. • Fire Management Zones • Wildfire Opportunities and Constraints Map 	This work undertaken by FE GIS team is to provide maps showing risk ratings, fire management zones opportunities and constraints and was initiated to inform the FDP and ES.	This work has now been completed and FE have offered to share and discuss the information with Dorset Fire and Rescue Service.
(3)	South of England Forest District Fire Plan (which includes the New Forest)	This plan accounts for the heath restoration proposed under the EIA.	The plan is in place and accounts for the proposed restoring of heathland. It is subject to continual review.
(4)	Wild Purbeck NIA Programme’s Wildfire Management Project	<p>This will set out the guidance and an action plan of the measures land managers could take to reduce fire risk.</p> <p>This will map the vegetation fire loads but contrary to paragraph 6.47 of the ES, this will NOT deliver maps showing fire risk zones, opportunity and constraints (these have been prepared by FE for their land holding - see (2)).</p>	In progress as part of the NIA Wildfire Working Group.

Ref.	“Workstream”	Notes	Current Status
(5)	Integrated training and advice that will engage with land managers and Dorset FRS to implement the action plan	This will implement (4).	In progress as part of the NIA Wildfire Working Group.

- 10.160 In light of this work FS considers that FE are using the vegetation fire risk management toolkits^{16,18} and understand the forthcoming guidance on building wildfire resilience into forest management planning has been and will continue to be followed. FS believe Dorset Fire and Rescue Service’s request is being met. The work also shows that FE are engaging with stakeholders including Dorset Fire and Rescue Service to ensure the measures are in place to deal with wildfire.
- 10.161 FS note that controlled burning is proposed as a management method for the heath (see paragraph 10.180). The potential for such prescribed fires to manage fuel loads is acknowledged as a control measure for vegetation fire risk. As the ES notes, such burning should be undertaken by staff with sufficient training and experience. This point is echoed by the vegetation fire risk management control measures which list prescribed fire management and operational plans and training for prescribed fire operations as control measures for wildfire risk.
- 10.162 In light of these measures and FE’s ongoing commitment to address wildfire risk (evident in table 6) FS have awarded consent but have applied the conditions to ensure that the measures to address wildfire risk and respond to fires continue to be undertaken and maintained to the satisfaction of Dorset Fire and Rescue Service (see condition **(J)**).

Hydrology

- 10.163 The proposal area includes main rivers and includes land within SPA and SAC designations as well as the Dorset Heath Ramsar site – the latter designation being applied due to its wet heath and mire and wetland flora. A number of other SSSIs are also present in the adjacent area. Because these features and designations are on or within the immediate area of the designated sites, water was considered to be highly sensitive to the proposals’ potential impacts.

¹⁸ [Vegetation Fire Risk \(2012\). Risk Management Control Measure: Toolkit for Practitioners and Advisors.](#)

- 10.164 The ES reports that the proposals have the potential to increase the surface water run-off and sedimentation due to the removal of trees which absorb more water than heath or bare ground. However, the underlying soils in the forest blocks are sandy and, irrespective of the surface vegetation, the majority of surface water is expected to infiltrate the soil and ground water. The one exception to this is the Affpuddle forest block. Here, run-off on steeper slopes has already led to the creation of natural drainage channels. However, in this situation an increase in surface run-off is only expected in the short-term, before heath becomes established on the ground.
- 10.165 Similarly, because an increase in surface run-off is expected to be minimal sedimentation is not considered to be a major concern especially when the size of the proposals are considered in the context of large areas of established forest and heath land around the proposals. This will serve to intercept any sedimentation carried in surface water run-off.
- 10.166 The use of chemicals during tree harvesting means that water pollution is a risk and this was identified as a potential impact in the ES. Mitigation against this is expected through FE's compliance with the UKFS Forests and Water Guidelines and use of FE's Pollution Control Plan which sets out the procedures which will be applied in the event of a pollution control incident.
- 10.167 The release of nutrients from decomposing brash and tree roots into surface and ground water was also identified as an impact in the ES. However, again the proposals' small scale means that, in conjunction with the intention to burn or remove the debris arising from tree felling, the potential impact is limited to only minor significance.

Consultation Responses

- 10.168 EA provided a consultation response on the hydrology section of the ES. EA agreed with the risk to water pollution and advised that this should be addressed through a risk assessment and the considered location of chemical storage and refuelling stations. Mitigation was also requested to reduce the risk of sedimentation during intense rainfall by considering the method of working.
- 10.169 EA advised that any small scale private ground water abstractions should be subject to a 50 metre protection zone.
- 10.170 EA considered the ES's analysis of water absorption had assessed the principle flood risk issues (the ES has stated that flood risk had been scoped out of the assessment on the basis of survey work experience and professional judgement).

- 10.171 Finally the response picked up on a reference to drain blocking that may influence local surface water drainage and advised that these works may require prior Land Drainage Consent from Dorset County Council. This would require the flood risk at a site level to be considered.

Conclusions

- 10.172 The ES identified a number of mitigation measures to address the impacts on water. Many of these are embedded in the operational practices FE follow and the impacts on water are therefore not considered to be a reason not to grant consent. Compliance with UKFS and its guidelines is a condition of EIA consent (condition **(F)**) and FS note that pollution control is required to comply with legislation (Water Environment (Water Framework directive) (England and Wales) Regulations 2003).
- 10.173 Beyond this the protection of unlicensed ground water supplied has been made a condition of consent to reflect EA's advice (condition **(K)**). As has seeking advice from the Dorset County Council on any drain blocking or culverting (condition **(L)**).

Air Quality

- 10.174 The ES considered the impacts the proposals would have on air quality in terms of dust and gas emitted during the tree felling, timber transport and heath restoration. Emissions associated with an increased fire risk were also considered.
- 10.175 Dust would be emitted during felling operations and nitrous oxides and particulates discharged from vehicles. The concern with dust was the loss of amenity and nuisance, especially on sensitive receptors within 200m of emissions and the impact dust may have on vegetation. However, negative impacts on vegetation are only anticipated where deposition exceeds a level sufficient to cause a nuisance: 200 mg/m²/day.
- 10.176 The release of key pollutants - particulates and nitrous oxides and nitrogen dioxide - were also assessed. Elevated levels of these pollutants can cause or aggravate lung and heart conditions Air quality standards, expressed as air quality objectives (AQO) are used to assess the ambient levels of these chemicals where the public would be regularly exposed to them. This information was used to understand the current, baseline situation. At present no AQOs are being exceeded (levels were 40% of the AQO), even though measurements to assess air quality are made close to the roadsides where levels will be highest due to road use.

Dust

- 10.177 The ES identified the re-suspension of dust in the air during vehicle movements as the main source of dust but the sawing of trees and excavation/raking undertaken to restore heathland were also identified as sources. Despite this the overall impacts of dust on air quality were not considered to be of significance because the felling would be staggered in time and carried out across small and fragmented pieces of land. Nevertheless, due to sensitive nature of the habitats surrounding the area to be felled the ES advised that mitigation measures should be adopted.

Emissions of Chemical Pollutants

- 10.178 The use of machinery to fell trees results in the emission of nitrous oxides, nitrogen dioxide and particulates. However because the tree felling in the proposals is spread over time and across the forest, this moderates the intensity and due to the low ambient levels, the impact the tree felling would have on the levels of these pollutants was considered to be negligible.
- 10.179 The emissions associated with the haulage of the timber from the felling sites were also considered, though the haulage of timber would apply regardless of whether the land were converted to heath land or remained managed as woodland. However, FS still note the ES's conclusions that the emissions related to this activity could still not be considered significant. Even the worst case scenario of heavy transportation¹⁹ was found to have an impact of negligible significance, i.e., an increase of less than 1% of AQO.

Emissions from Fire

- 10.180 The heathland will be managed under a schedule of controlled burning of 2-3 hectare patches in winter each year. Each patch is burnt on a 30 year cycle. This intensity of burning was not considered to be a significant factor affecting air quality.
- 10.181 The impact of wildfire was also considered on the basis that the replacement of woodland with heath results in a land use which has a higher risk of wildfire and can allow a wildfire to spread more rapidly. The ES concluded the release of pollutants from wildfire could not be assessed due to the uncertainty as to wildfire frequency and scale of wildfire. Despite this the ES recognised the risk of wildfire and its potential to affect air quality (as well as animals, habitats, people and the built environment - see paragraph 10.135) and mitigation measures were suggested.

¹⁹ 260 lorry movements per week based on ten felling sites were operating at once rather than the two expected.

Consultation Responses

- 10.182 None of the consultation responses raised any points in relation to air quality.

Conclusions and Mitigation

- 10.183 FS accept the conclusion drawn by the ES with regard to air quality and that the proposals will not have a significant impact. Many of the mitigation measures proposed in the ES form part of FE's standard operating procedures for felling operations and controlled burning. However, those that are most essential have been made conditions of consent, especially where they relate to the prevention of wildfire (see conditions **(K)**, **(P)** and **(S)** in section 12).

Carbon Balance

- 10.184 The ES considered the change to carbon storage on the land associated with conversion of plantation forest to heath by comparing the amounts of carbon woodland and heathland were expected to store (in various carbon sinks) over a set period. Information on carbon storage and emissions available from the [Woodland Carbon Code](#) were used to predict the expected carbon balance of the woodland and heath (including its management by controlled burning) over the 15 year project period. The potentially beneficial reduction in emissions from the use of removed trees for other purposes (e.g. fuel) in place of fossil fuel products was also scoped out of the ES.
- 10.185 FS did not accept this as an appropriate method of assessing the carbon balance storage because it failed to account for the long-term carbon storage provided by woodland. This long-term approach is common practice in carbon accounting and expected under the Open Habitats Policy which identified the carbon storage provided by woodland as a key consideration in developing the balancing mechanism and in site-by-site decision making whether to support the conversion of woodland to open habitat:

"When calculating the carbon impact of woodland removal, both the impact on the long-term carbon store of the site, and the reduced rate of production of timber and woodfuel that substitute for other energy intensive materials and fuels, should be taken into account."

- 10.186 Therefore FS asked that the carbon assessment was revised to compare the long-term average storage of the carbon in the woodland and heathland. This was undertaken based on the values provided in FCE [Operation Note 32](#) and was submitted to FS as an addendum to the ES. The revised assessment considered the average carbon storage over a 100 year period – two rotations of plantation woodland, and looked at the theoretical potential for carbon to be saved in wood products.
- 10.187 The revised assessment found that the proposals would have a significant adverse impact on carbon storage, reducing the carbon on the land from 50,525 to 13,750 tonnes of CO₂ equivalent (CO₂e).
- 10.188 The potential carbon saving delivered from the use of woodland products was estimated on the basis that the products substitute fossil fuels. This would provide a further 122,828 tCO₂e of carbon savings over the 100 year period. The Addendum states that the actual reduction in such carbon saving created by the proposals would be between range zero (i.e., if the wood is used in products) and 122,828 tCO₂e (if the wood is used as a fossil fuel substitute). This conclusion fails to account for the carbon saving woodland products can provide as a substitute for more energy/carbon intensive materials such as steel or concrete. However, because it is impossible to be sure of the end use of timber products, and the end use of most wood product from the forest blocks is for shorter-term use such as fencing or is subject to intensive processing to create composites such as chipboard, FS consider that the addendum makes the best possible assessment of the project's impact in carbon storage on the land and in wood products.
- 10.189 The ES considered the carbon emissions arising from machinery working the site and transport to and from the site where it was noted that the emissions associated with the tree felling and timber haulage would occur at the time of tree harvesting irrespective of whether heathland was restored. In light of this and the difficulties of calculating onsite carbon emissions the impact of onsite carbon emissions was considered to be negligible. The emissions associated with timber haulage were quantified, on an assumption of 13 traffic movements per week for the duration of the felling period (15 years to 2026), as 605tCO₂.
- 10.190 In concluding the assessment of carbon balance the ES considered the potential for tree planting proposed in the wider Wild Purbeck NIA to offset some of the carbon emissions (see 10.122) and set out recommendations to mitigate the carbon emissions associated with the project.

Consultation Responses

- 10.191 NE's consultation response to the ES considered the carbon balance, advising great caution in the interpretation of the ES addendum's long-term analysis of carbon balance due to the uncertainties associated with making predictions over such a long time period.

- 10.192 NE were concerned that carbon impacts had been determined without due regard to the carbon stored in soils – which, for woodland and heath, is an important sink. NE’s alarm here was that the positive impact heathland restoration can have on carbon storage in soil had been overlooked: trees dry out soil and so, under a baseline scenario where trees are replanted rather than heathland restored, this could lead to the release of carbon. As a result the assessment failed to accurately account for carbon storage linked to heathland.
- 10.193 It is true that the effect on soil carbon was not accounted for in the calculation of long-term carbon storage due to the difficulties and uncertainties associated with this. However, FS considered this approach acceptable in this instance because the predominant soil types are freely draining sandy soils rather than soils with deep peats (an organic layer over 40cm) which would store considerable volumes of carbon. This is to be expected because the vast majority of the mire habitat where the soils have a peaty surface have already been cleared of trees – this was verified by comparing the areas of existing heath in the forest blocks (see figures 3.2-3.11 of the ES) with soil maps available from the [Land information Search Soilscales tool](#).
- 10.194 NE were also concerned that the ES failed to provide a transparent explanation of how the carbon balance predicted for 15 years had been extrapolated over 15 years. The ES Addendum explains that the long-term carbon balance has been calculated using the method outlined in [FCE Operations Note 32](#) which was developed at the time to support the analysis in the ES Addendum (and future projects). This Operations Note is publicly available. Data in these Operation Notes are based on the [evidence which supports the Open Habitats Policy](#) (see table 14). As a result while FS recognise there are uncertainties in calculating long-term carbon storage FS believe the method is clear.

Conclusions

- 10.195 FS agree with the conclusion of the ES with regard to emissions associated with working on the site and timber haulage: the proposals will have a minimal impact and beyond this recognise that their relevance to the EIA is limited only to the premature felling of trees, as the only anomaly to tree felling as part of normal forest management.
- 10.196 FS also agree with the conclusions drawn by the long-term assessment of carbon and appreciate both the additional work undertaken to assess carbon on this basis and the concerns associated with such long-term time scales. Nevertheless, despite the uncertainties, FS consider the approach of using a long-term average to be the most appropriate and best possible assessment of the long-term carbon impact.

- 10.197 Having accepted the methodology it is clear the proposals result in a considerable reduction in carbon storage which is a negative impact. While this can be addressed by tree planting, ideally in the immediate area (17.5 hectares already approved in the NIA – see paragraph 10.139) FS note that this is outside the control of FE and there is the potential for the carbon associated with this planting to be registered for sale to provide private carbon offsets. It would therefore be inappropriate to rely on this to offset a proportion of the carbon loss associated with the project. The question is therefore whether or not compensatory tree planting should be undertaken to compensate for the reduction in carbon storage. The loss of carbon storage is also a key consideration of the Open Habitats Policy and in considering whether to support or allow proposals to restore open habitat.
- 10.198 FS's decision on how this proposal conforms with the OHP is set out in section 11. In brief, FS have concluded the nature conservation benefits of this scheme outweigh the negative impacts associated with carbon storage. Key factors in reaching this decision are:
- The reasons outlined in the conclusions on Nature Conservation and Ecology (from paragraph 10.55) and section 11 (assessment against Open Habitat Policy).
 - The mechanism to balance deforestation to create open habitat with the loss of woodland (including carbon storage) shows that overall the current balance is in favour of forestry, i.e., overall the potential for woodland creation is sufficient to offset the loss of woodland for open habitat creation.
 - The majority of the trees to be felled under the proposals are at economic maturity and so the carbon stage associated with this rotation has been maximised (see appendix 5).
- 10.199 Despite this conclusion, given the overall negative impact on carbon storage FS consider that steps are necessary to minimise carbon emissions. Condition **(C)** will require that principles are established for the management of brush, ensuring burning and de-stumping only take place where there is a sound rationale. Beyond this FS expect the proposals to comply with the UKFS Requirements and Guidelines and compliance with the UKFS has been made a condition of consent (Condition **(F)**).

Historic Environment

- 10.200 The direct (physical damage) and indirect (effect on their setting) impacts on heritage assets were considered in the impact assessment. Assets, and how they are potentially impacted, were identified from a range of data sources and rapid survey of the proposal areas in each forest block.
- 10.201 The significance of any impact was determined by considering a combination of the assets' importance, as determined by their historical interest and designated status. The ES observes that the techniques used to prepare the ground for afforestation (of the current plantations) are likely to have destroyed heritage assets or undermined their chances of survival in the long-term. The ES also notes that Heritage Assets are under-represented in Historic Environment Records (limited to survey of areas of reclaimed heath) so the possibility of new discoveries is high.
- 10.202 The ES explains that creation of the Dorset heath was due to human influence with woodland used for timber and hunting but the extensive woodland clearance took place to enable grazing, clay extraction and, in some areas, arable agriculture during the Bronze Age.
- 10.203 Evidence of prehistoric settlement is concentrated along water courses where the soils are richer but Bronze Age burial mounds (barrows) are found across the study area. The construction of these features on heath land often means they are affected by ground disturbance but the best of these features have been designated as Schedule Ancient Monuments (SAM). The zones around barrows are considered to be of high archaeological potential because barrows are often associated with other cemetery features which are not immediately apparent, such as the raised mounds of the barrows themselves. Other important features within the forest blocks are Roman-British and Iron Age sites.
- 10.204 The impact assessment found heritage assets in each forest block of varying importance but the only assets of high importance that may be affected by the heathland restoration were found in the Affpuddle forest block. These were Bronze Age burial mounds (bell and bowl barrows) which are subject to the SAM designation.
- 10.205 Direct impacts are identified as the movement of vehicles and machinery during felling operations and ground clearance to facilitate the establishment of heath following tree felling. Both of these operations may affect vulnerable surface remains but the impacts associated with tree felling would apply regardless of whether heath would be restored and are therefore not an impact created by the deforestation proposal for heathland restoration. Impacts of ground preparation were considered minor to moderate negative.

- 10.206 The proposals were considered to have a positive indirect impact by recreating the heath which would have provided the original setting for the heritage assets. An indirect impact of aerating artefacts predicted in a waterlogged environment is not expected because no such sites were found.

Consultation Responses

- 10.207 None of the consultation responses raised any points in relation to the historic environment.

Conclusions and Mitigation

- 10.208 FS accept the assessment of impacts on historic assets and do not consider the potential negative impacts grounds not to award consent.
- 10.209 The OSA procedure to check for features of historical importance and adherence to UKFS guidelines for Forest and Historic Environment will help to mitigate impacts of tree felling - and adherence to this procedure and UKFS are required as a condition of consent (conditions **(C)** and **(F)**). SAMs are subject to legal protection, and permission for works may be required from English Heritage. Due to this legal control FS have not made the protection of SAMs a condition of the EIA consent.
- 10.210 The ES recommends extensive walkover of the sites to check for any potential earthworks at risk from tree felling and restoration works. This should be undertaken and is expected as part of the OSA procedure. Given that the areas around barrows are considered to be of high potential (and the HER is considered to under-report archaeological features) and that these features are not visible at ground level the ES consent requires that there is no ground disturbance in the immediate vicinity of the barrows (Condition **(T)**).

11 Open Habitats Policy

- 11.1 While the ES is specifically concerned with the project’s actual impacts on the environment, the Open Habitats Policy (OHP) requires us to consider the proposals’ value in delivering open habitat that meets biodiversity objectives and how such proposals affect the ability of woodland and forestry to contribute towards a low-carbon economy. FS have considered the proposals in the context of the OHP and decided that they qualify as proposals which should be “*allowed*” under the OHP.
- 11.2 The OHP: an assessment of the proposals against these criteria is set out in table 7. The overarching principle of the policy is to ensure the right tree in the right place, the right habitat in the right place and the change at the right pace. FS consider the proposals are consistent with these principles.

Table 7: Assessment of the proposals against Open Habitat Policy criteria for sites which may be supported or be allowed.

Criteria	FS analysis
<p>Extending or buffering high quality habitat.</p> <p>The new open habitat will extend or buffer areas of high quality existing open habitat, and there is evidence that fragmentation of the current habitat is having a detrimental impact on the wildlife in that habitat.</p>	<p>FS consider the proposals are consistent with this criterion.</p> <p>The proposals will extend and link areas of high quality habitat (as evidence by their National (SSSI) and International (SAC) designations. While fragmentation is not expressly identified as a reason for unfavourable condition in these sites the presence of trees and scrub in some areas is cited as a constraint to achieving favourable SSSI condition in some units and the management of trees and scrub encroachment is one of NE’s views on managing Dorset Heath. The removal of trees buffering these designated sites will help achieve this by removing an immediate seed source.</p>

Criteria	FS analysis
<p>Connecting high quality habitat.</p> <p>The new open habitat will form a viable wildlife link between areas of high quality open habitat (improving ‘connectivity’) and there is evidence that lack of connectivity is having a significant detrimental impact on the wildlife in that habitat.</p>	<p>As a consequence of the facts below FS consider the proposals meet this criterion.</p> <p>The proposals will link areas of high quality habitat. While fragmentation is not identified as a major constraint to SSSI condition, the proposals will facilitate the movement between established meta-populations - this is identified as a particular benefit for reptiles in the Ecological Assessment undertaken for the EIA. It will also deliver the landscape-scale change and habitat networks Biodiversity 2020 targets. As a result FS consider the proposals are consistent with this criterion.</p> <p>Actions for s41 species as identified by Biodiversity 2020 Terrestrial Biodiversity Group to identify what needs to be done for these S41 species to recover involve high priorities to “Ensure habitat creation and management that provides suitable habitat features within a highly connected landscape” for slow worm, grass snake and adder and for smooth snake, improving the condition and connectivity of habitat at occupied sites, taking into account specific habitat requirements is high. For nightjar, initiation of a strategic approach to the large-scale re-creation of lowland heathland, agreed by the main conservation agencies and organisations, is marked as an urgent action.</p>
<p>Designated areas.</p> <p>The woodland is growing on a site with a national or international conservation designation, such as a site designated under the Habitats Directive for Annex 1 habitat types, as a Site of Special Scientific Interest or National Nature Reserve and the woodland adversely impacts on its open habitat characteristics.</p>	<p>Strict definition of this criterion does not apply but FS consider the proposals will contribute to its aim by improving the condition of designated sites and expanding Annex I habitat.</p> <p>The proposals areas are immediately adjacent to sites with these designations and it is noted in the Third report on UK implementation of the EC Habitats and Species Directive that the self-seeding conifers still present a problem. As a result the removal of conifers from the immediate areas around areas of designated heath will help prevent this occurring.</p>

Criteria	FS analysis
	In addition the open habitats anticipated as a result of the deforestation will be Annex I types. This point is noted in the ES and the value of the proposals in this regard is emphasised in NE's EIA consultation response.
<p>Grazing.</p> <p>The new open habitat will extend or link areas of open habitat to allow a practical grazing area to form, and there is evidence that conservation grazing will be established and maintained once the open habitat is created.</p>	FS consider the proposals meet this criterion: because the open habitat will be maintained by grazing.
<p>Threshold sizes.</p> <p>The new open habitat will add to the current area of open habitat to form a patch of continuous or well-connected open habitat that is significantly more viable in the long-term (as indicated minimum desirable patch sizes identified in Habitat Actions Plans can be used as a guide)</p>	<p>FS consider the proposals meet this criterion.</p> <p>The proposals will create or further expand lowland heath which is above the 30 hectare minimum patch size indicated in the Habitat Action Plan.</p>
<p>Opportunities for species of conservation concern.</p> <p>There is evidence that converting the woodland to open habitat presents significant opportunities to enhance species of conservation concern.</p>	<p>The EcIA has identified the potential for the proposals to provide habitat for three bird species listed on Annex I of the EC Birds Directive (see paragraph 10.33). Nightjar is also a species of Principal Importance in England listed under S41 of the Natural Environment and Communities Act 2006.</p> <p>The EcIA also concluded that the proposals were likely to increase reptile populations. All six native reptiles are species of Principal Importance listed under S41 of the Natural Environment and Communities Act 2006, while sand lizard and smooth snake are both species listed on Annex IV of the EC Habitats and Species Directive which aims to achieve favourable conservation status for these species across the EC. In light of this FS consider the proposals meet this criterion.</p>

- 11.3 A further expectation of the OHP is that there is a broad consensus of public support for such proposals: the public value trees and woodland. FS consider this requirement of the policy has been met:
- Consultation on the revisions to the FDP has provided local people with opportunity to comment.
 - While falling short of NE, RSPB and NIA Partnership aspiration to restore more extensive areas of heath the proposals reflect their aspiration to restore Open Habitat over extensive areas of the forest blocks. On the other hand other stakeholders had concerns about the loss of woodland – these are considered in Appendix 4. FS consider the current proposals strike a balance between these interests and that overall there appears to be broad local acceptance of the proposals.
- 11.4 FS note that perceptions may change over time as more heathland is created. Any proposals to restore further areas of open habitat will require further consultation to ensure aspiration to restore open habitats is balanced with the interests of local communities. This point is recognised in the [Strategy for Open Habitat Creation on the Public Forest Estate](#).
- 11.5 To ensure the rate of removal and planting of productive woodland takes place at an appropriate rate the OHP also considers where the compensatory tree planting is required to ensure the woodland’s contribution to a low carbon economy is only compromised where the open habitat will deliver greater public benefit. FS recognise these proposals will result in the loss of considerable loss of plantation woodland which has the potential to sequester a considerable volume of carbon (see paragraph 10.184 onward). However, FS consider the proposals are of sufficient nature conservation merit to warrant support without compensatory tree planting. The rationale for this decision is set out in table 8.

Table 8: Consideration of criteria for compensatory planting.

Criteria where compensatory tree planting may be required.	FS Analysis.
Conversion of woodland to open habitat where it will not provide significant biodiversity benefit, 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.	<p>FS consider this criterion does not apply:</p> <p>The principal aim of the proposals is to deliver high value open habitat at the landscape scale. The anticipated benefits are significant – buffering habitat subject to national and internal designations and expanding habitats for internationally rare and protected species.</p>

Criteria where compensatory tree planting may be required.	FS Analysis.
<p>The rate of permanent woodland removal is being sustained at a level above the reasonable balance except for sites of exceptional biodiversity benefit.</p>	<p>FS consider the current rate of woodland removal is exceeded by woodland creation.</p> <p>The OHP sets out a mechanism to balance the loss of woodland against its ability to contribute to a low-carbon economy. This sets an aspiration of restoring or creating 1,000 hectares of open habitat creation a year IF the rate of woodland creation also accelerates.</p> <p>Table 9 provides data on the rate of woodland creation (as indicated by the approval of grant for tree planting by FS) since the introduction of the Open Habitats Policy March 2010.</p> <p>This information indicates a fairly consistent level of woodland creation followed by an increase in creation in 2013/14 - likely due to the proposed closure of grant payment for woodland creation from December 2013 and the uncertainty as to the availability of grant aid for such activity beyond this time.</p> <p>These figures show in all years the area of open habitat creation has remained below both 1,000 hectares per year and that of woodland creation.</p>
<p>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, except for sites of exceptional biodiversity benefit.</p>	<p>At this time consolidated information about the loss of productive woodland²⁰ to restore open habitat – centralised records came into effect in 2013/14 (36 hectares for the year so far). While some assumption could be made that all the woodland supported by grant aid is productive (the trees must be appropriate to the site to warrant financial support) the establishment of conifer crops, which are acknowledged within the OHP as a key contributor to low carbon economy are rarely features in new planting schemes. While this may change as a consequence of the drive to diversify tree species in response to climate</p>

²⁰ Productive woodland is defined as woodland achieving yield class 10 for conifers and yield class 6 for broadleaves.

Criteria where compensatory tree planting may be required.	FS Analysis.
	<p>change and plant health risks, this project represents a reduction in the overall area of productive conifer woodland.</p> <p>Due to the considerable positive biodiversity benefits the project is expected to deliver (outlined in the main EIA) FS have concluded that the proposals are of exceptional biodiversity benefit and compensatory planting is not required. However, further work is required to monitor the overall balance and extent of productive woodland across England to confirm whether the total area of productive woodland is declining in the long-term.</p>
<p>Evaluation and review of the policy shows that desired outcomes are not being achieved due to negative impacts through loss of woodland.</p>	<p>At this time, three years after implementation the Open Habitats Policy, it is not possible to assess the proposals against this criterion.</p>

Table 9: Woodland creation and open habitat restoration in England (hectares).

	2010/11	2011/2012	2012/13	2013/14*
Woodland creation	1,755	1,880	1,832	~2,000
Open habitat restored on PFE	280	93	119	TBC (193 hectares of restoration at Purbeck proposed)
Conversion from woodland to open habitat on private land	613	642	341	233

* Current forecast for the 2013/24 financial year.

11.6 The decision framework outlined in this policy (Section 5.1.4 of the policy) will favour the conversion to open habitat of land that does not grow high quality timber well. This is because the highest benefits to biodiversity will

tend to be on sites of lower fertility. FS will also only allow the removal of plantations before economic maturity in exceptional circumstances.

- 11.7 FS note that the tree felling will result in the premature felling of productive woodland. In the case of these proposals the majority of the tree felling is at economic maturity (see appendix 5) so carbon storage will have been maximised in the current rotation.
- 11.8 A further consideration of the OHP, especially in regard to lowland heathland, is wildfire risk: evidence indicates open habitats generally present a greater wildfire risk than woodland. As a result the OHP expected the impact of wildfire risk to be considered in the scoping for proposals for converting woodland to open habitat over thresholds for environmental impact assessment. In this instance the impact of wildlife has been considered by the EIA process with mitigation measures recommended and formalised as conditions of consent.

12 Conclusions

- 12.1 The information contained in the ES has been examined, consultees' responses have been investigated and experts engaged to advise on the most complex issues and to help decide whether evidence presented by the applicant in the ES was fit for purpose. The conclusion of this process was that the evidence presented in the ES was sound and of a standard that allowed FS to consider the proposals' impacts in terms of criteria listed in paragraph 10.1 and evaluate them against the criteria listed in paragraph 10.2.
- 12.2 After analysis FS have determined the evidence in the ES supports a conclusion that overall positive impacts outweigh the negative. In particular, the evidence within the ES and other sources indicates the significant impacts on habitats and species will overall be positive.
- 12.3 There are some negative impacts associated with the tree felling but FS note that tree felling would occur even if the deforestation were not proposed (as part of the normal cycle of forest management). These impacts are therefore not a direct consequence of the deforestation, other than in the limited instances where trees will be felled before their economic maturity (16% of the felling). Even in this case the infection with *Dothistroma* needle blight provides some rationale for the tree felling.
- 12.4 Some negative impacts are anticipated on woodland bird species and potentially bats. Both birds and bats have legal protection and in the case of bats good practice exists to enable woodland operations to take place in a manner that minimises harm to them and keeps within the law. FS have also considered the points made in the ES that these impacts are diluted by the continuing presence of trees in the forest blocks and wider landscape.

- 12.5 There will a negative impact on long-term carbon balance. FS considered that the ES provided no mitigation measures which would fully address this. However, FS have assessed the proposals against the principles of the Government's open habitats policy and concluded that the proposals are of sufficient nature conservation value to warrant felling without restocking. In reaching this decision the overall rates of woodland creation across England have been assessed with the outcome being that rates of woodland creation exceed deforestation for open habitat creation. The loss of production woodland is of more concern but again, FS find the proposals accord with the principles of the open habitat policy and their ecological value outweighs the loss of productive woodland²¹.
- 12.6 The ES details a range of mitigation measures. FS expect the applicant to undertake these as part of the proposals and those which are considered key to either addressing negative impacts or securing the positive impacts the proposals are anticipated to provide have been made conditions of consent. This is important because it is these benefits that support the decision to accept the proposals without compensatory planting.
- 12.7 In light of these key points, and after having regard for its duty under section 41 of the NERC Act 2006, FS have determined to provide consent for the application subject to the conditions set out in the following section.

Conditions of Consent

- 12.8 These conditions have been applied to the consent to address possible negative impacts in which the proposals could result. Conditions have not been applied where legal protection already exists or compels the land manager to comply with Good Practice.
- 12.9 FS expect the applicant to implement the mitigation measures outlined in the Environmental Statement but key mitigation measures, particularly those not covered by legal requirements, have been made conditions of consent.

Condition (A): The proposals hereby permitted shall be commenced before the expiration of five years from the date of this permission.

Reason: This condition is required by the EIA regulations (regulation 18a) that apply to forestry projects.

Condition (B): No work shall be carried out in relation to the relevant project after the expiration of ten years from the date of this permission.

Reason: This condition is required by the EIA regulations (regulation 18b) that apply to forestry projects.

²¹ At the time of writing FS are considering proposals to create a large-scale productive conifer woodland in Nothumberland which, if approved, would go some way to offsetting the loss at a national level (which is the level considered by the open habitats policy).

Information note: The proposals assessed in the ES covered a 15 year time period and include some felling which will take place beyond the ten year timescale of this EIA consent. A further EIA Opinion will be required to assess the impacts of the outstanding deforestation.

Condition (C): Within 12 months of the first tree felling the principles and practices for the managing of the open habitat will be documented by the applicant and provided to FS for approval. This document will detail how: scrub and tree encroachment, brash and heath vegetation will be managed (including controlled burning and grazing), bare ground created, define clearly where de-stumping will take place and confirm that the mosaic approach to managing habitats will be adopted. It will make reference to the OSA procedure to ensure that the management practices are appropriate to the location.

Condition (D): The land owner will comply with the management principles approved under condition (C) for the period of the EIA consent.

Reason: To ensure the positive outcomes expected from the project are delivered and that the heathland will be managed in accordance with the [mosaic approach to habitat management](#) advocated by Natural England, without detriment to the range of species present in the forest blocks and surrounding area.

Condition (E): The OSA procedure outlined in Appendix 2 of this document will be followed.

Reason: To ensure environmental assets are protected from harm during forestry operations.

Condition (F): The UK Forestry Standard and associated guidelines will be followed.

Reason: To ensure measures are taken to protect biodiversity, water, soils and features of the historic environment, and that carbon emissions are minimised and require compliance with a suite of wider legislation and good practice.

Condition (G): The Purbeck and Affpuddle forest blocks will be subject to annual surveys for bats and the results of these surveys will be supplied to the National Bat Monitoring Programme. To establish a baseline for this survey work existing data from the current monitoring programme will be analysed to provide a baseline before the first annual survey. After five years the results of these surveys will be reviewed with Natural England officers responsible for the Purbeck area. The objective of this review will be to determine if measures may be required to address any negative impact on the bat populations in these forest blocks.

Reason: To ensure the project contributes to the national and local monitoring of bats and the effectiveness of mitigation measures and ensure a local picture of the impact on bats is available to inform any future impact assessment required for future proposals to restore open habitat in the forest blocks.

Condition (H): Prior to felling, areas will be surveyed for nesting raptors and where appropriate the guidance provided in Forestry Commission Bulletin 115: Ecology and Conservation of Raptors in Forests (Petty, 1998) will be followed.

Reason: To ensure the protection of any birds of prey prior to and during tree felling operations.

Condition (I): Interpretation boards will be installed at key points where main walking routes enter heathland restoration areas. These will explain the change and purpose and advise on interacting with grazing animals and advise visitors of the risk dogs pose to disturbing ground nesting birds.

Reason: To ensure the local community understand the reasons for the work and the measures to follow to stay safe when passing close to grazing livestock and that dog walkers do not undermine the positive impacts the proposals are expected to deliver.

Condition (J): The fire risk assessment and fire plan will be kept up-to-date and control measures will be applied in accordance with the Vegetation Fire Risk Management and Control Measures toolkits for practitioners and advisors.

Reasons: To ensure wildfire risk is managed and that control measures are put in place and that controlled burning is located appropriately by trained staff and in accordance with an operational plan.

Condition (K): The OSA procedure will check for any private/unlicensed ground water abstraction of less than 20m³/day. If such abstraction is found no work will take place within a 50 metre protection zone without agreement from the Environment Agency.

Reason: To protect any unknown ground water abstraction systems within the proposal areas.

Condition (L): Any drain blocking and culverting will only be undertaken after consulting Dorset County Council.

Reason: To ensure drain blocking and culverting is only undertaken in appropriate circumstances and where necessary to ensure compliance with the regulations that control land drainage.

Information Note: Prior Land Drainage consent may be required from Dorset County Council for drain blocking and culverting.

Condition (P): FE will undertake a programme of public awareness about the felling operations and controlled burning. This will involve: erecting signage at key access points in advance of and when operations (including prescribed burns) are taking place, during operations to alert people about the works and the related dangers. Access to operational areas will be restricted and the signage will provide contact details for the person in charge of the works so they can be contacted should any issues arise.

Reason: To safeguard the public from harm and avoid unnecessary calls on emergency services and ensure the public have contact point in case of concerns.

Condition (S): No burning of wastes will take place and when felling in dry conditions close to residential properties and public highways water will be used to suppress dust where necessary.

Reason: To minimise atmospheric pollution and safeguard highway safety.

Condition (T): Zones of no ground disturbance will be established around the barrows prior to felling operations and intensive heathland management. No machinery will run within these zones, there will be no de-stumping and there will be no ground disturbance for the creation and management of the heathland (for example the creation of bare sand scrapes). The management of these zones will be addressed in the management principles and practices required under condition (C).

Reason: To protect unknown features of archaeological importance.

Information Note: Consent will be required from English Heritage for works that may affect Scheduled Ancient Monuments.

13 References

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ⁱ NIAs components of an ecological network:

- Core areas, especially existing wildlife sites (National Nature Reserves (NNRs), Sites of Special Scientific Interest (SSSIs), Local Nature Reserves (LNRs) etc.).
- Corridors and stepping stones.
- Restoration areas, where priority habitats are created to provide (in time) more core areas.
- Buffer zones, that reduce pressures on core areas.

ⁱⁱ Significant improvements to the ecological network can be achieved over large areas by enlarging and enhancing existing wildlife sites, improving ecological connectivity and creating new sites.

The surrounding land use can be better integrated with valued landscapes and action to restore wildlife habitats and underpinning natural processes helping to adapt to climate change impacts.