

Volume 1

Contents

1	Introduction	Page 3
2	The Project	Page 15
3	Policy Context	Page 41
4	Historical and Cultural - Archaeology Assessment	Page 81
5	Historical and Cultural – Landscape Assessment	Page 133
6	Flora and Fauna – Habitat and Species Assessment	Page 163
7	Population and Access Assessment	Page 203
8	Soils, Air and Water	Page 233
9	Summary of Main Impacts and Concept Design	Page 243

Volumes

- 1 EIA process, the project and assessments
- 2 Archaeology surveys, full reports and data
- 3 Landscape assessment full reports
Visitor number assessment
Highways report for main entrance
- 4 Wildlife survey data

List of Appendices

- 1 Site location plan
- 2 Minutes from scoping meeting
- 3 Meetings and consultation events list and detail
- 4 Impacts and general comments received through stakeholder and wider consultation.
- 5 Forestry commission determination letter
- 6 Site plan showing roads
- 7 Aerial photo boundary with Nomansland common
- 8 Aerial view showing surrounding land use
- 9 Surrounding land use and cycling map
- 10 Farm Buisness Tenancy surrender plan
- 11 Phase 1 habitat survey map
- 12 Car parking assessment
- 13 Access track 1 specification
- 14 Access track 2 specification
- 15 Heartwood green access links
- 16 Services map
- 17 The Woodland Trust's view on food security and land use in the UK
- 18 Species list, Nomansland common
- 19 Woodland Trust Ancient Woodland position statement
- 20 Expanding our Horizons - Woodland Trust publication
- 21 Natural colonisation research paper
- 22 List of main contributors
- 23 Proposed Heartwood Forest design

1 - Introduction



- 1.1 The Woodland Trust
- 1.2 Background to the Project
- 1.3 The Environmental Impact (EIA) Assessment Regulations
- 1.4 The Scope of the EIA
- 1.5 Identification and Assessment of Impacts
- 1.6 Implementation of the EIA

Appendices – Volume 1 appendices bound separately

1. Introduction

1.1 The Woodland Trust

The Woodland Trust has been established for 37 years and is now the UK's only organisation dedicated to the protection and conservation of our native woodland heritage. We currently own and care for over 1200 woods across the UK covering in excess of 23,000 Ha (55000 acres), including 6000 Ha (15000 acres) of ancient woodland and 110 Sites of Special Scientific Interest (SSSIs). We have four clear objectives which guide our work.

- No further loss of ancient woodland. Ancient woodland by definition has been wooded continuously since the 1600s but in many cases, probably for thousands of years. This habitat is our equivalent of the rainforest, supporting more species than any other habitat in the UK. Ancient woodland soils have never been cultivated, and with years of influence from the climate, culture, flora and fauna, ancient woodland is unique and irreplaceable. We have lost 50% of our ancient woodland since the 1930s.
- Improving woodland biodiversity. The Woodland Trust believes that one of the biggest threats to UK biodiversity comes from climate change. In our current fragmented landscape many species will find it hard to adapt and move in response to this. Linking and buffering habitats, particularly ancient woodland, is therefore a priority through new wildlife habitat creation and less intensive land use.
- Increasing native woodland. Trees and woods are important for a number of reasons; clean air, clean water, as landscape features, wildlife habitat, and places for people to visit. We have lost many woods to changing land-use practices over past decades. The Woodland Trust would like to see a doubling of native woodland cover across the UK to achieve these important environmental services.
- Increasing people's enjoyment of woodland. The Woodland Trust feels woods are important for people, they can connect them with their environment, either as a place to visit and enjoy, to appreciate in the landscape or through getting involved in creating new woods. There is increasing evidence that trees and woods have huge health benefits, both in terms of physical activity, but also our mental health. We feel that connecting and inspiring children through woodland creation and woodland visits is one important way we can help the next generation appreciate and care for our natural heritage.

1.2 Background to the project

1.2.1 The Woodland Trust had been looking for a large area of land in the south east of England for some time where we could realise an ambition for a significant woodland creation project close to high populations of people to maximise both wildlife and people engagement potential. Heartwood Forest (Hillend Farm) was available off the open

market and the sale was only available through private negotiation. We completed the purchase on 30th September 2008. (See location in volume 1, appendix 1)

1.3 The Environmental Impact Assessment (EIA) Regulations

1.3.1 Under the *Environmental Impact Assessment (Forestry) (England and Wales) Regulations 1999 [SI 1999/2228]*, the production of an Environmental Statement (ES) may be required for relevant projects under four categories

- New Planting
- Deforestation
- Forest Roads
- Forest Quarries

1.3.2 The role of the Forestry Commission

The Forestry Commission (FC), as the government department responsible for regulating forestry in Great Britain is the 'competent authority' with respect to the EIA legislation for forestry projects, and is responsible for determining whether a project requires assessment (the screening process).

1.3.3 In August 2008, the Woodland Trust wrote to the FC to seek a determination as to whether an EIA would be required for the Heartwood Forest project for afforestation. Following a screening meeting with FC staff, it was determined that the size of the proposed project required a full EIA and production of an Environmental Statement (ES). The determination response is shown in volume 1, appendix 5.

1.4 The scope of the EIA

1.4.1 The EIA regulations require the applicant to submit an application for consent to the regulator and this should be accompanied by an Environmental Statement (ES) which provides an unbiased assessment of the significant impacts, positive and negative, of the proposals on the environment. To identify these impacts the Woodland Trust adopted two main processes;

- **Scoping meeting** with key stakeholders. On the 19th January 2009 a meeting was organized with a number of organizations, individuals and authorities, representing a cross-section of interested parties to identify the key impacts which needed to be addressed within the Environmental Statement. The stakeholder list was agreed with the FC in advance and agreed to be appropriate. (Minutes from this meeting are available in volume 1, appendix 2)
- **Wider consultation.** Within the broad parameters and objectives identified by the Woodland Trust for Heartwood Forest (see section 2.3), the Woodland Trust carried out a series of additional consultation meetings with other organizations and individuals to help identify potential impacts and opportunities which the project may have. This consultation period started at our first public meeting held

at Sandridge village hall on the 5th August 2008 and will continue beyond the production of the ES to help develop ongoing plans and project development. The site design and project planning needed to be developed with local input, and as such the wider consultation carried out has been instrumental in developing the plans as outlined in Section 9. The broad consultation techniques are detailed below, full list of events and meetings available, see volume 1, appendix 3.

Initial 'meet us' meetings held in Sandridge, Marshalswick, Wheathampstead and Harpenden
Individual meetings with direct neighbours
Series of on-site – open to all meetings for local people
Series of on-site meetings for interested organizations and groups
Provision of on-line information and comment provision through heartwood e-mail address
Bluebell walks
Presentations to local groups, either targeted or by request
Heartwood Forest Blog site
Quarterly newsletters with contact details
Various meetings with Hertfordshire County Council, St Albans City and District Council, and parish councils.

Table 1-1, Broad communication and consultation techniques

1.5 Identification and assessment of impacts

1.5.1 Through both the scoping meeting with stakeholders and wider consultation from August 2008 – June 2009, a summary of all potential impacts were identified (see volume 1 appendix 4). Additional impacts, not identified at the scoping meeting or wider consultation, but required to be considered under the EIA guidance are also included.

1.5.2 The EIA process requires the identification of significant potential impacts relevant to the project and the mitigation/ enhancement of these to be considered. The impacts and comments identified have all been assessed as to whether they fall within the scope of the EIA, and where they are considered to be relevant, the level of potential impact has also been evaluated and the level of assessment made for the EIA is in accordance with the criteria laid down in table 2 below.

Assessment	Consideration Level
Within scope of EIA	Will be covered within the ES.
Outside the scope of the EIA	May be considered as part of longer term management plan, project development.
Low potential impact	With minimal environmental impact, will be considered briefly within EIA.
Medium potential impact	Will be covered in appropriate detail within the ES, either by Woodland Trust staff, available guidance of outside specialists.
High potential impact	Requires significant evaluation, likely to be through the use of specialist consultants.

Table 1- 2

1.5.3 The assessment of impacts have been considered against the previous land use, largely arable land with some existing woodland and minimal public access

Table 3 below shows the impacts identified to be addressed within the EIA. A full list of issues raised and comments are available in appendix 4. It should be recognized that specific comments made may be included in more general classifications and that many representations received were similar and therefore classified as one impact or comment.

The impacts to be assessed have been categorized into four main areas for the purpose of the Environmental Statement; however each area may contain a number of different themes and impacts which required different levels of assessment. The four categories are –

- Historical and Cultural
- Flora and Fauna
- Population and Access
- Air, Soils and Water

Impact identified through scoping and consultation	Context	Within scope of EIA	Assessment of all impacts. N.B. This is not an assessment of priority, but is an assessment of potential impact to the environment	Explanation
Historical and Cultural				
Archaeology	Protection of underground archaeology.	Yes	High	Root and tree damage has potential to damage some underground archaeology. Woodland will also limit the potential for future archaeological investigation of the area. New archaeological information will be available for the district as a result of the project. We will be able to make new archaeological information available to a wider audience to appreciate through site information and interpretation.
	Influence of past land use on habitat creation plans.	Yes	Med	Long history of arable farming. Interesting features which are important will be identified through landscape and archaeological work and retention where appropriate needs to be considered.
	Management and future of hedgerows present within wooded environment.	Yes	Low	Historic presence of old hedge lines where significant may need to be considered where these are incorporated into woodland planting.
	Consider the setting of other nearby listed and important properties.	Yes	High	Permanent change in landscape character.
Landscape	Fit with local landscape and landscape characterization.	Yes	High	Need to consider local landscape character, how this can be enhanced and be sympathetic to regional guidelines and local opinion.
	Consider local opinion of views from inside the site.	Yes	High	Protection of views currently available where identified, as well as providing new ones currently inaccessible.

Impact identified through scoping and consultation	Context	Within scope of EIA	Assessment of all impacts. N.B. This is not an assessment of priority, but is an assessment of potential impact to the environment	Explanation
Flora and Fauna				
Non-woodland habitat	Need to consider open habitat in its own right.	Yes	Med	Open space will undoubtedly be created as part of the project. Conversion from arable to semi-natural habitat is predicted to have a positive biodiversity impact.
	Need to know significant open ground species present.	Yes	High	Important species need to be considered, including arable weeds, meadow species if present.
Species	Identification of species protected under European and UK law, and identified as having conservation requirements within UK and local Biodiversity Action Plans.	Yes	High	Site design and proposals will need to take into account any protected and important species of flora and fauna where they occur.
Adjacent and local habitat	Need to consider all adjacent and local habitat resources in design, in particular Nomansland Common.	Yes	Med	Need to look at impact on existing important habitat and look to consider potential expansion/enhancement of these.
Deer management	Consider impact of deer.	Yes	Low	Consider impact of potential increases in deer populations on adjacent population, roads, railway, and adjacent land use.
New wildlife habitat	Extensive new area of trees and associated habitats.	Yes	Med	General positive impact of a woodland as opposed to existing arable land. The likely overall increase in biodiversity.

Impact identified through scoping and consultation	Context	Within scope of EIA	Assessment of all impacts. N.B. This is not an assessment of priority, but is an assessment of potential impact to the environment	Explanation
Population and access				
Access groups	Need to consider pressure and impact from horses and other specialist user groups, and needs to be balanced with pedestrian users and impacts on the site and wildlife interests.	Yes	Med	Heavy use could have negative impacts for sensitive areas. Need to consider potential for access for specialist user groups such as horse riders and cyclists.
	Site needs to fit into wider access links and be accessible.	Yes	High	Important in assessing non-motorized access to and from the forest.
	Need to consider if public transport is a viable option for visitors.	Yes	Med	Will have an impact of visitor strategy and longer term partnership working and people engagement plans.
	Protection of areas sensitive to access pressures.	Yes	High	Access in high concentrations in 'hot spots' could have a negative impact on valuable areas or disturbance of sensitive species.
	Need to consider access points to adjoining access provisions such as footpaths, bridleways, Nomansland Common	Yes	Low	Links and enhancement of existing access provisions will be important to support green access, desire to see Heartwood Forest and Nomansland Common linked for access, as both will support overall visitor strategy for area. Heartwood Forest will have an impact in terms of visitor use and visitor management on Nomansland Common.

Heartwood Forest Environmental Statement

Impact identified through scoping and consultation	Context	Within scope of EIA	Assessment of all impacts. N.B. This is not an assessment of priority, but is an assessment of potential impact to the environment	Explanation
Antisocial behavior	Concern locally and from neighbors.	Yes	Med	Recognized as a potential issue with encouraging visits. Impact of litter and also character of local area.
Impact on adjacent properties	Issues including security, privacy, buffer zones, light and views, impact of potential visitors.	Yes	Med	Change of surrounding land use to properties will need to be considered both in terms of ensuring impact is limited as far as possible, and potentially how the setting may be enhanced by a woodland setting.
Transport	Concern that visitor numbers will not be sustainable in terms of local road network and traffic congestion.	Yes	High	Visitors and people engagement are a consideration to ensure that the local environment and amenity are not adversely affected, and where possible enhanced.
	Understand current traffic flow and congestion issues.	Yes	High	Will be required as part of analysis for visitor and traffic management could offer solutions to speeding in the village and overflow in peak times of existing car parking.
	Assess need for car parking capacity.	Yes	High	Will be required as part of analysis for visitor and traffic management.
	Need to have a strategy for visitor arrivals/parking for mass participation events.	Yes	High	Will be required as part of analysis for visitor and traffic management.
	Visitors crossing B652.	Yes	High	By promoting access to the whole site, visitors may wish to cross the busy B652 which bisects the site. Will need to be considered in access and transport planning.
	Impact on tourism within the district.	Yes	Med	District plans are in place to promote St Albans as a destination for tourists. Heartwood Forest can contribute towards this aspiration.

Impact identified through scoping and consultation	Context	Within scope of EIA	Assessment of all impacts. N.B. This is not an assessment of priority, but is an assessment of potential impact to the environment	Explanation
Education	Opportunity to offer educational material and provide information on site to inform visitors.	Yes	Low	Building awareness locally and further afield as to why Heartwood Forest is important and part of our natural heritage, should help raise environmental knowledge and understanding, helping to protect the environment through future generations.
Food production	Loss of arable land.	Yes	Low	Statement on Woodland Trust position required.
Air, soils and Water				
	Geology needs to be considered.	Yes	Low	Tree planting will have little effect on geology.
	Hydrology needs to be considered.	Yes	Low	Consider impact of trees on water table. Project area does not include any water courses or open water and will not produce contaminants, however trees and woods can protect against soil run-off, can improve recharge of the water table (compared to arable) due to increased filtration rates, and can greatly reduce contamination of water by removing pollutants such as nitrates. Impact likely to be low as 20% of catchment area would be required to be planted to have a detectable impact.

Table 1- 3, assessment of impacts considered within scope of EIA

1.6 Implementation of the EIA

1.6.1 The purpose of the EIA is to assess the impacts without bias to determine if the impact will have a positive, negative or neutral outcome, and to look at how these impacts will change over the time of the project. The EIA will also determine any mitigation required and look at how, through project design and delivery, the benefits to the environment can be enhanced and maintained.

1.6.2 The impacts highlighted within the EIA will have been assessed by the Heartwood Forest team with the assistance of 'in house' specialists, where the impact is considered low or medium. The use of external independent specialist consultants have been used where impacts are potentially significant, such as landscape and archaeology, visitor access, and wildlife surveys. A full list of consultants and organisations which have been engaged are available in appendix 23.