# Southampton to London Pipeline Project

## Volume 6

Environmental Statement (Volume D)
Appendix 7.3: Ancient Woodland Factual
Report

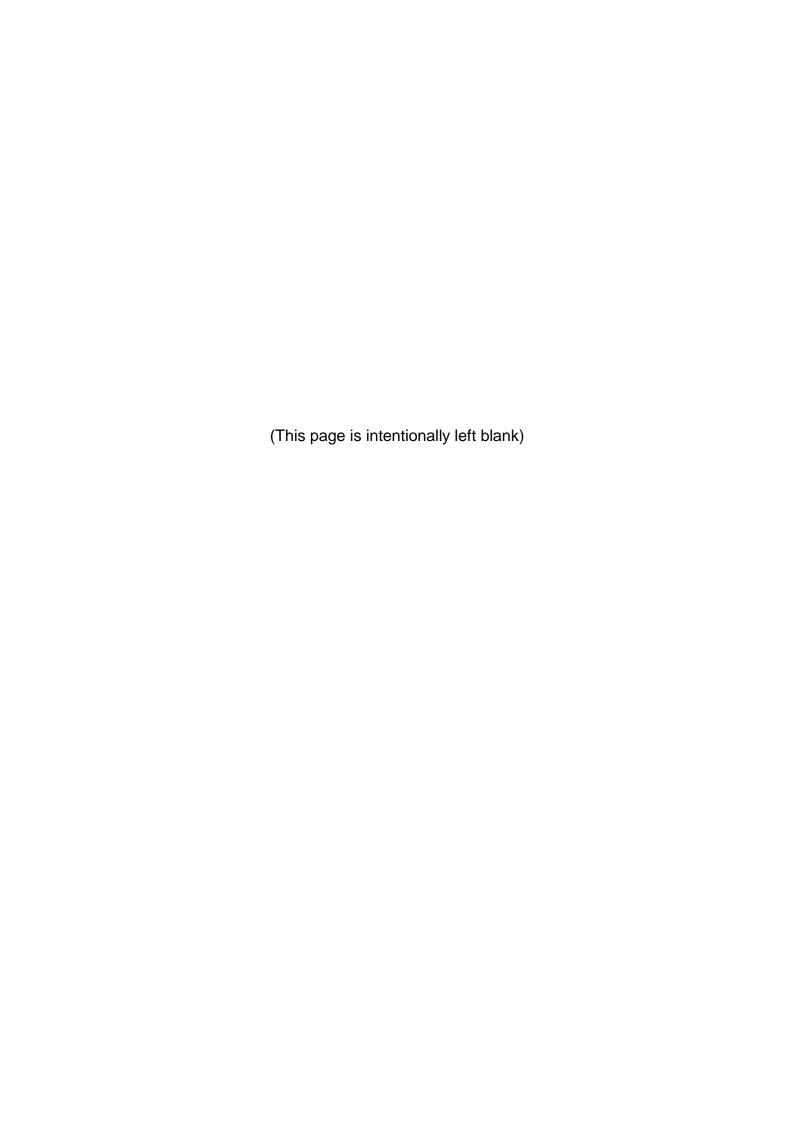
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## **Southampton to London Pipeline Project**

Esso Petroleum Company, Limited

**Appendix 7.3: Ancient Woodland Factual Report** 

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#### **Southampton to London Pipeline Project**

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#### Contents

1	Introduction	. 1
1.1	Overview	. 1
1.2	Ancient Woodland	. 1
2	Methodology	. 3
2.1	Introduction	. 3
2.2	Ancient Woodland Inventory Sites	. 3
2.3	Potential Ancient Woodland Sites (Less Than 2ha)	. 3
2.4	Limitations	. 4
3	Results	. 5
3.1	Ancient Woodland Inventory Sites	
3.2	Potential Ancient Woodland (Site Less Than 2ha)	. 5
4	Discussion	. 7
4.1	Ancient Woodland Inventory Sites	. 7
4.2	Potential Ancient Woodland (Site Less Than 2ha)	. 7
Refe	rences	. 8
Anne	ex A – Ancient Woodland Indicator Species	. 9
Figur	res	11

## **Southampton to London Pipeline Project Environmental Statement**

#### **Appendix 7.3: Ancient Woodland Factual Report**



#### 1 Introduction

#### 1.1 Overview

- 1.1.1 Esso Petroleum Company, Limited (Esso) is making an application for development consent to replace 90km (56 miles) of its existing 105km (65 miles) aviation fuel pipeline that runs from the Fawley Refinery near Southampton, to the Esso West London Terminal storage facility in Hounslow. The replacement pipeline is 97km (60 miles) long and is referred to as the project within this appendix.
- 1.1.2 This Ancient Woodland Factual Report has been produced to support the application for development consent and the accompanying Environmental Statement (ES) under the Planning Act 2008.

#### 1.2 Ancient Woodland

- 1.2.1 Spencer and Kirby (1992) define Ancient Woodland as woodland that has been in continuous existence since at least 1600 AD.
- 1.2.2 The Forestry Commission (FC) and Natural England (NE) Standing Advice (FC and NE, 2018) states that Ancient Woodland comprises:
  - Ancient Semi-Natural Woodland (ASNW) mainly made up of trees and shrubs native to the site, usually arising from natural regeneration; and
  - Plantations on Ancient Woodland Sites (PAWS) replanted with conifer or broadleaved trees that retain Ancient Woodland features, such as undisturbed soil, ground flora and fungi.
- 1.2.3 Other distinct forms of Ancient Woodland are classed as:
  - wood pastures identified as ancient; and
  - historic parkland, which is protected as a heritage asset in the National Planning Policy Framework.
- 1.2.4 Ancient Woodland takes hundreds of years to establish and is considered irreplaceable habitat (FC and NE, 2018). It is important for its:
  - wildlife (which include rare and threatened species);
  - soils;
  - · recreational value; and
  - cultural, historical and landscape value.
- 1.2.5 Natural England maintains an Ancient Woodland Inventory an electronic dataset which records information about Ancient Woodland in England (NE, 2018). The Ancient Woodland Inventory comprises woodland sites which are of an area of at least two hectares on the Ordnance Survey's First Series 1:25,000 maps.
- 1.2.6 Ancient Woodland Inventory sites (over 2ha) comprise ASNW, PAWS and ancient woodland sites which have been cleared since the surveying for the Ordnance



Survey First Series 1:25,000 maps. A single woodland site in the Ancient Woodland Inventory may comprise one or more of these.

- 1.2.7 Ancient Woodlands under 2ha are excluded from the Ancient Woodland Inventory but are, potentially, as equally biodiverse and of value as those over 2ha in area.
- 1.2.8 This Ancient Woodland Factual Report identifies Ancient Woodland Inventory sites (NE, 2018) and any additional areas of 'potential ancient woodland' (see section 2.3), less than 2ha in size, which could be impacted by the project. Ancient Woodland Inventory sites, by nature of their selection criteria, are a minimum of 2ha in size. However, ancient woodland habitats less than 2ha can similarly contribute to biodiversity and local ecology. As such, these smaller habitats have also been reviewed.

## **Southampton to London Pipeline Project Environmental Statement**

#### **Appendix 7.3: Ancient Woodland Factual Report**



## 2 Methodology

#### 2.1 Introduction

- 2.1.1 The survey methodology described below has been informed by consultation and engagement with consultees (Natural England and the local authority ecologists). Professional judgement by experienced ecologists has been used to refine the methodology detailed below.
- 2.1.2 A desk study was undertaken to establish the quantity and extent of Ancient Woodland habitats along the project and consisted of two parts:
  - Ancient Woodland Inventory sites; and
  - potential ancient woodland sites (less than 2ha).

#### 2.2 Ancient Woodland Inventory Sites

2.2.1 Using the online Ancient Woodland Inventory (NE, 2018), Ancient Woodland Inventory sites (greater than 2ha in area) were identified within 1km of the project and mapped.

#### 2.3 Potential Ancient Woodland Sites (Less Than 2ha)

- 2.3.1 A desk study of habitats within 50m of the Order Limits was undertaken to identify potential ancient woodland sites less than 2ha. A 50m study area was considered appropriate as potential impacts to the habitat beyond this distance are highly unlikely. An ArcGIS Online Web Application was used to map these areas of woodland of less than 2ha if they met one or more of the following criteria:
  - CRITERIA 1 areas of existing woodland within, adjacent to or connected to areas where woodland previously stood as shown on the historical Ordnance Survey map from the year 1888 (National Library of Scotland, 2017);
  - CRITERIA 2 areas of existing woodland within or connected to Sites of Importance for Nature Conservation (SINCs) in Hampshire designated under criteria 1A (Ancient Semi-Natural Woodland) or criteria 1B (other woodland with significant element of Ancient Semi-Natural Woodlands surviving) (Hampshire County Council, 1996);
  - CRITERIA 3 areas of existing woodland within or connected to Sites of Nature Conservation Importance (SNCIs) in Surrey designated under criteria 1B (Other ancient woodland including plantations on ancient woodland sites where there is a significant element of the original semi-natural woodland surviving) and/or:
    - > it holds at least 10 ancient woodland indicator species;
    - it holds at least five ancient woodland indicator species and includes other features associated with ancient woodland, e.g. well-developed boundary banks and ditches, old/large coppice stools or veteran trees or other archaeological features; or
    - ➤ there is other clear, specified evidence that the woodland should be considered as ancient, e.g. old maps, historical documents, the wood's name,

## **Southampton to London Pipeline Project Environmental Statement**

#### **Appendix 7.3: Ancient Woodland Factual Report**



shape, internal boundaries and location relative to other features (Surrey Wildlife Trust, 2008).

- CRITERIA 4 areas of existing woodland within the study area that is directly
  adjacent or is connected to an Ancient Woodland Inventory site via other
  woodland habitat or a hedgerow; and
- CRITERIA 5 areas of existing woodland found to support a minimum of 10 plant species indicative of Ancient Woodland (i.e. Ancient Woodland Indicators) during the Phase 1 Habitat and Botany Surveys carried out between April and August 2018 (see Annex A for summary and Appendix 7.1 Habitats and Botany Report for full survey results).
- 2.3.2 A precautionary approach is taken, and it is assumed that these sites support Ancient Woodland habitat for the purposes of assessment in the ES.

#### 2.4 Limitations

- 2.4.1 Although it was not possible to undertake field surveys of all woodland habitats identified during the desk study, the desk study results and field survey results are considered sufficiently extensive to have reliably captured all the Ancient Woodland Inventory sites and potential ancient woodland (sites less than 2ha) in the study area.
- 2.4.2 As the precautionary approach has been applied, it was not necessary to undertake field survey on the potential ancient woodland (sites less than 2ha).



#### 3 Results

#### 3.1 Ancient Woodland Inventory Sites

3.1.1 A total of 213 Ancient Woodland Inventory sites were identified from the Ancient Woodland Inventory within 1km of the project. These comprised 143 ASNW sites and 70 PAWS. Locations of these Ancient Woodland Inventory sites are shown in Figure A7.3.1.

#### 3.2 Potential Ancient Woodland (Site Less Than 2ha)

- 3.2.1 Twenty-five sites were identified as potential ancient woodland (site less than 2ha) within 50m of the Order Limits. These are listed in Table 3.1 and displayed in Figure A7.3.1. Seven of these sites were located within the Order Limits.
- 3.2.2 Identification numbers for potential ancient woodland (site less than 2ha) are not sequential due to changes in route design and finalisation of route options during the desk study.



Table 3.1: Potential Ancient Woodland Sites Less Than 2ha

Potential Ancient Woodland	Relative Location to Order Limits			Selection Criteria				
Less Than 2ha Identifier (See Figure A7.3.1)	Within Order Limits	Within 50m of Order Limits	1	2	3	4	5	
AW2		-	-	•	-	-	•	
AW3	-	•	-	•	-	-	-	
AW4	-	-	-	-	-	-	-	
AW4a		-	-	-	-	-	-	
AW5	-		-	-	-	•	-	
AW5a	-		-	-	-	-	-	
AW7		-	-	•	-	•	-	
AW8	-		-	-	-	-	-	
AW12		-	-	•	-	-	-	
AW13	-		-	-	-	-	-	
AW13a	-		-	-	-	-	-	
AW14	-		-	-	-	-	-	
AW14a	-	•	-	-	-	-	-	
AW15	-		-	•	-	-	-	
AW15a		-	-	•	-	•	•	
AW16	-		-	•	-	•	-	
AW18	-	•	-	-	-	-	-	
AW20	-	•	-	-	-	-	-	
AW28	-	•	-	-	-	-	-	
AW29	-	•		-	-	-	-	
AW30		-		-	-	•	-	
AW31	-			-	-	-	-	
AW35	-	=	•	-	-	-	-	
AW37a	-	=	•	-	-	•	-	
AW41		-	•	•	-	-	-	



#### 4 Discussion

#### 4.1 Ancient Woodland Inventory Sites

- 4.1.1 A total of 213 Ancient Woodland Inventory sites were identified within 1km of the Order Limits and are shown on Figure A7.3.1. Of these 143 are ASNW sites and 70 are PAWS.
- 4.1.2 No Ancient Woodland Inventory sites are located within the Order Limits.
- 4.1.3 Ancient Woodland Inventory sites are considered to be a rare habitat of declining presence at a national level. The habitat is impossible to recreate, resulting in Ancient Woodland being a finite resource.
- 4.1.4 No Ancient Woodland Inventory sites are located within the Order Limits, so habitat loss is avoided. However, a number of Ancient Woodland Inventory sites are located within 50m of the Order Limits.

#### 4.2 Potential Ancient Woodland (Site Less Than 2ha)

- 4.2.1 Twenty-five potential ancient woodlands were identified within 50m of the Order Limits. Seven of these sites were located within the Order Limits: AW2; AW4a; AW7; AW12; AW15a; AW30; and AW41.
- 4.2.2 These potential ancient woodland (site less than 2ha) are also considered to be rare and declining at the national level as these could support the same irreplaceable habitat confirmed within Ancient Woodland Inventory sites.



#### References

Esso (2018). Southampton to London Pipeline Project: Scoping Report (Volume 1). Planning Inspectorate Reference Number EN070005. July 2018.

Forestry Commission and Natural England (2018). Assessment Guide: helping to assess the impact of planning development proposals on ancient woodland and veteran trees. Accessed December 2018.

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## **Annex A – Ancient Woodland Indicator Species**

A1.1.1 Table A1 lists the Ancient Woodland Indicator species recorded during Phase 1 Habitats and Botany Surveys (Appendix 7.1) at locations identified during the desk study as being potential ancient woodland sites less than 2ha.

Table A1: Ancient Woodland Indicator Species Recorded During Botanical Survey

Potential Ancient Woodland Less Than 2ha Identifier	Botanical Survey Site Name in Appendix 7.1	Common Name	Scientific Name
AW2	Ford Lake	Bluebell	Hyacinthoides non-scripta
		Field maple	Acer campestre
		Field rose	Rosa arvensis
		Giant fescue	Schedonorus giganteus
		Guelder-rose	Viburnum opulus
		Moschatel	Adoxa moschatellina
		Opposite-leaved golden-saxifrage	Chrysosplenium oppositifolium
		Pendulous sedge	Carex pendula
		Polypody	Polypodium vulgare
		Primrose	Primula vulgaris
		Ramsons	Allium ursinum
		Red currant	Ribes rubrum
		Remote sedge	Carex remota
		Soft shield-fern	Polystichum setiferum
		Three-nerved sandwort	Moehringia trinervia
		Wood anemone	Anemone nemorosa
		Wood speedwell	Veronica montana
AW3	Durley Hedge 1	Black bryony	Tamus communis
		Butcher's-broom	Ruscus aculeatus
		Field rose	Rosa arvensis
		Hairy-brome	Bromopsis ramosa
		Stinking iris	Iris foetidissima
		Wood anemone	Anemone nemorosa
		Wood melick	Melica uniflora
AW15a	Ewshot Hedgerow	Black bryony	Tamus communis
		Bluebell	Hyacinthoides non-scripta
		Field maple	Acer campestre
		Hairy-brome	Bromopsis ramosa
		Primrose	Primula vulgaris
		Red currant	Ribes rubrum
		Remote sedge	Carex remota
		Sanicle	Sanicula europaea
		Wood-sedge	Carex sylvatica



Potential Ancient Woodland Less Than 2ha Identifier	Botanical Survey Site Name in Appendix 7.1	Common Name	Scientific Name
		Wood anemone	Anemone nemorosa
		Wood melick	Melica uniflora
AW41	Water Lane	Field maple	Acer campestre
		Hairy-brome	Bromopsis ramosa
		Primrose	Primula vulgaris
		Soft shield-fern	Polystichum setiferum
AW31	Foxhills Golf Course	Aspen	Populus tremula
		Barren strawberry	Potentilla sterilis
		Black bryony	Tamus communis
		Creeping soft-grass	Holcus mollis
		Guelder-rose	Viburnum opulus
		Hornbeam	Carpinus betulus
		Pendulous sedge	Carex pendula
		Slender St John's-wort	Hypericum pulchrum
		Wood meadow-grass	Poa nemoralis



## **Figures**

Figure A7.3.1 Ancient Woodland

