

# Southampton to London Pipeline Project

## Volume 6

Environmental Statement (Volume B)  
Chapter 1: Introduction

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# 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 an existing pipeline to transport aviation fuel between Boorley Green in Hampshire and the Esso West London Terminal storage facility in Hounslow. The route is shown on Figure 1.1. The replacement pipeline is 97km long taking into account that it cannot follow the line of the existing pipeline along its whole length due to new developments and environmental constraints.
- 1.1.2 Due to the length of the replacement pipeline, the project is classified as a Nationally Significant Infrastructure Project (NSIP), as defined by Section 21 of The Planning Act (2008), and as such will require a Development Consent Order (DCO) to give consent to install the pipeline.
- 1.1.3 This Environmental Statement (ES) presents the findings of an Environmental Impact Assessment (EIA) for the replacement pipeline, which is hereafter referred to as 'the project'. The ES has been prepared to meet the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations (2017) ('the EIA Regulations'), and forms part of the application for development consent.
- 1.1.4 The project objectives were developed as fundamental requirements for delivering a successful project. They are:
- To replace the pipeline from Boorley Green to the Esso West London Terminal storage facility in Hounslow, via Alton in Hampshire, to connect to existing pipeline infrastructure;
  - To meet all the relevant planning requirements;
  - To maintain fuel supply during replacement; and
  - To develop and install a safe, buildable, operational and economically feasible pipeline.

## 1.2 Project Background

- 1.2.1 Completed in 1972, the existing pipeline originally transported a type of oil used by large industrial facilities and oil-fired power stations. With the growth of air travel, the pipeline was then used to transport aviation fuel and since the 1980s it has been used to supply some of the UK's busiest airports.
- 1.2.2 The existing pipeline is working adequately, but the need for inspections and maintenance is increasing. In 2002, 10km (6 miles) of pipeline were replaced between Hamble and Boorley Green in Hampshire. Replacement of the remaining 90km (56 miles) of pipeline between Boorley Green and the Esso West London Terminal storage facility in Hounslow is now proposed to maintain the supply of aviation fuel.
- 1.2.3 The importance of the UK's oil and gas pipeline distribution system is highlighted within the National Policy Statements (NPS) for Energy (NPS EN-1 and NPS EN-



4), which set out the Government's assessment of the importance of energy infrastructure.

- 1.2.4 Since the existing pipeline was built, the counties of Hampshire and Surrey have changed substantially. The South Downs National Park and many environmentally protected sites have been established across parts of the route of the existing pipeline. New homes and businesses have been created and roads such as the M25 have been opened. Consequently, at some locations environmental constraints and recent development restrict the opportunity to install the replacement pipeline alongside the existing pipeline.
- 1.2.5 Studies for the replacement of the pipeline commenced in 2017. A number of corridor options (typically 200m wide) for the replacement pipeline route were identified, and a team of engineering, environmental, and planning experts assessed these options against the project objectives and guiding principles (which are explained in Chapter 4 Design Evolution). A first public consultation (non-statutory) was undertaken in March and April 2018 to help select a preferred corridor for the replacement pipeline. This included a series of consultation events held in or near the proposed corridors. Over 1,000 individuals and organisations responded to the consultation.
- 1.2.6 As a result of these assessments, and following a detailed analysis of feedback received during the above consultation, the number of corridor options was reduced to a single preferred corridor, which was selected and announced to the public on 30 May 2018.
- 1.2.7 Over the summer of 2018, an initial working route was developed and released via the project's website. This allowed more focused and specific discussions with landowners and key consultees, refining the route ahead of consultation.
- 1.2.8 Further design and assessment work was undertaken to develop a preferred route (approximately 20-30m wide), following the preferred corridor, including data collection, field surveys, design and assessment, and engagement and consultation with landowners, environmental regulators, local authorities and other consultees.
- 1.2.9 A Scoping Report (Esso, 2018) was prepared and submitted to the Planning Inspectorate in July 2018 to accompany a request for a Scoping Opinion under the EIA Regulations. The Scoping Report provided the information then available on the project, an explanation of the likely significant effects of the project on the environment, and set out the intended scope of the ES. The Planning Inspectorate (for the Secretary of State) consulted relevant consultation bodies under the EIA Regulations and issued its Scoping Opinion on the scope and level of detail of the information to be provided in the ES in September 2018.
- 1.2.10 A second public consultation (statutory) was undertaken on the preferred route for the replacement pipeline in September and October 2018, which included 11 public consultation events. The preferred route was informed by data collected from organisations including local councils, environmental specialists, utility companies and project engineering and environmental studies. A third consultation (the project's second statutory consultation) was undertaken to seek views on design refinements that may have different potential impacts to Esso's previous proposals



for landowners, the environment or local communities. This consultation also considered the use of six potential temporary logistics hubs to be used in the installation phase. The consultation was held in January and February 2019 and feedback was reviewed and analysed, and informed the application and this ES.

- 1.2.11 Further information is provided on the route selection process in Chapter 4 Design Evolution, on the consultation and engagement in Chapter 5 Consultation and Scoping, and on the scoping of the ES in Chapter 6 Overview of the Assessment Process.

### **1.3 Project Summary**

- 1.3.1 The purpose of the project is to replace 90km (56 miles) of pipeline from Boorley Green near Southampton, to the Esso West London Terminal storage facility via Alton in Hampshire. A full project description is provided in Chapter 3, with a brief summary below.

- 1.3.2 The project would replace the existing pipeline, which has an internal diameter of about 25cm, with a new pipeline that has a nominal internal diameter of 30cm. The replacement pipeline route is 97km in length.

- 1.3.3 Replacement of the pipeline would maintain the supply of aviation fuel for years to come. As a responsible operator, Esso is committed to safe operations that include maintaining, repairing and, where appropriate, replacing pipelines.

- 1.3.4 The project comprises the following elements:

- 97km of new pipeline to be routed via the Alton Pumping Station to deliver greater connectivity and resilience to the UK fuel supply network;
- a new “pigging” station at Boorley Green to allow the entry and exit points for Pipeline Inspection Gauges (PIG) during inspections;
- 14 remotely operated in-line valves along the pipeline to allow isolation for maintenance, and one Pressure Transducer to monitor pressure;
- 6 above ground cathodic protection (CP) transformer rectifier cabinets to supply power to the existing CP system;
- pipeline markers along the route at all road, rail and river crossings and boundaries and new red and black colour-coded flight marker posts to track the pipeline route when inspected by helicopter; and
- modifications to the PIG station at the Esso West London Terminal storage facility including installation of a new 40cm PIG receiver for the 30cm diameter PIGs.

- 1.3.5 The existing pipeline will continue to be operated so as to maintain fuel supply during the replacement installation. This is because the existing pipeline cannot be taken out of operation for more than short periods, to ensure secure supplies to customers. Once the replacement pipeline is fully operational, the existing pipeline would then be decommissioned. Decommissioning of the existing pipeline does not form part of the application for development consent, as it is covered by the original pipeline consent.



- 1.3.6 The replacement pipeline would be buried underground. The minimum depth from the top of the pipe to the ground surface would be 1.2m in open cut sections, and deeper for trenchless crossings. The pipeline would be installed using open-cut trenching methods for most of the route. For major crossings of A-roads, motorways and some other heavily trafficked roads, railways and some watercourses, specialist trenchless techniques would be used.
- 1.3.7 The Order Limits encompass the land required permanently and temporarily to build and operate the project, including the working width to install the pipeline, construction compounds, laydown areas, road access points, land required for above ground installations (such as the new pigging station, valves and CP transformer rectifier cabinets), and a 3m easement either side of the pipeline.
- 1.3.8 Works to install and commission the pipeline are expected to start from grant of development consent and be completed by early 2023. Certain advance works may take place prior to grant of development consent where consented under alternative regimes, for example, the Town and Country Planning Act 1990.
- 1.3.9 To aid design development and environmental assessment, the route was broken down into eight separate sections (Section A to Section H). These sections may be referenced within the topic chapters and are shown on Figure 1.1:
- Section A – Boorley Green to Bramdean;
  - Section B – Bramdean to South of Alton;
  - Section C – South of Alton to Crondall;
  - Section D – Crondall to Farnborough;
  - Section E – Farnborough to Bisley and Pirbright Ranges;
  - Section F – Bisley and Pirbright Ranges to M25;
  - Section G – M25 to M3; and
  - Section H – M3 to the West London Terminal storage facility.
- 1.3.10 In general, the aspects of the project are described in this ES from south to north.

## **1.4 Purpose of the Environmental Statement**

- 1.4.1 Environmental Impact Assessment (EIA) is a systematic process to identify, predict and evaluate the environmental effects of a proposed project. Its primary purpose is to inform the decision as to whether a project should go ahead. The EIA process also has an important influence on the design of the project since it enables environmental impacts to be identified and, where possible, to be avoided through sensitive design. In addition, it identifies mitigation opportunities, where appropriate.
- 1.4.2 The EIA Regulations require an assessment of the likely significant effects of a proposed infrastructure development on the environment, where the environment is interpreted widely to include people, their health, and the natural environment. Attention is therefore concentrated within the ES on those areas where there could be a significant effect, and the solutions proposed to reduce those effects.





- 1.4.3 The EIA has been developed in parallel with other regulatory environmental studies, namely the Habitats Regulations Assessment and the Water Framework Directive Assessment. These are described in further detail in Chapter 7 Biodiversity and Chapter 8 Water respectively.
- 1.4.4 There is a requirement under the EIA Regulations to consider transboundary effects, i.e. those effects that could affect receptors within other countries. No transboundary effects have been identified for the project. This is documented in the Transboundary Screening document received from the Planning Inspectorate and dated 2 October 2018 (Planning Inspectorate, 2018a).
- 1.4.5 This ES has been prepared in accordance with the EIA Regulations and advice notes provided by the Planning Inspectorate, in particular:
- Advice Note Six: preparation and submission of application documents (2016);
  - Advice Note Seven: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping (2017a);
  - Advice Note Ten: Habitat Regulations Assessment relevant to Nationally Significant Infrastructure projects (2017);
  - Advice Note Seventeen: Cumulative effects assessment (2015); and
  - Advice Note Eighteen: The Water Framework Directive (2017b).
- 1.4.6 Further discussion of the regulatory framework is provided in Chapter 2 Regulatory and Policy Context.

## **1.5 ES Structure**

- 1.5.1 The EIA in general, follows a receptor-based approach. This means that the majority of the ES topic chapters are based on receptors that may be affected by the project. Within those chapters, discussions regarding likely significant effects resulting from the installation and operation of the project via the sources of environmental change e.g. noise, dust, construction traffic, land take and vegetation clearance, are presented.
- 1.5.2 This ES is structured in four volumes as shown in Table 1.1, comprising the Non Technical Summary, the Main Report, Figures and supporting Appendices.
- 1.5.3 Due to the complexity of the EIA process and the interactions between each of the topic areas, a figure has been developed to aid understanding of the ES contents and linkages between chapters. This is provided in Appendix 1.1. This describes the main receptors studied in each chapter. Related topics are then also listed with the chapter where they are to be found.
- 1.5.4 Appendix 1.2 comprises a list of the key photographs that are referenced within the ES.



**Table 1.1: Structure of the Environmental Statement**

Volume / Chapter	Contents
<b>Volume A: Non-Technical Summary (NTS)</b>	
At the front of the ES	A summary of the ES in non-technical language that is accessible to a wide audience. This is also available as a separate document.
<b>Volume B: Main Report</b>	
Chapters 1-4	<p>These provide project background and design information:</p> <ul style="list-style-type: none"> <li>• Chapter 1 Introduction provides a general introduction to the project, the EIA process and the structure and content of this ES;</li> <li>• Chapter 2 Regulatory and Policy Context outlines the legislation and national policy applicable to the installation of a new aviation fuel pipeline, and refers to Appendix 2.1 and 2.2 on environmental legislation and regional and local planning policies;</li> <li>• Chapter 3 Project Description describes the project in sufficient detail to inform the assessment, including the final route of the pipeline, the expected construction programme and construction methods and principles; and</li> <li>• Chapter 4 Design Evolution provides a history of the project; how the project design has evolved and how embedded design measures have been built into the design.</li> </ul>
Chapter 5	Chapter 5 Consultation and Scoping outlines the consultation and engagement undertaken with statutory and non-statutory bodies and consultees. It also summarises the outputs of the EIA scoping stage. Please refer to the Consultation Report ( <b>application document 5.1</b> ) for further details.
Chapter 6	Chapter 6 Overview of Assessment Process sets out the EIA process and a summary of the methodology for the assessment.
Chapters 7-15	<p>The main part of the ES covers topics which have been scoped into the assessment because relevant receptors could be significantly affected by the project. The topics covered are:</p> <ul style="list-style-type: none"> <li>• Chapter 7: Biodiversity;</li> <li>• Chapter 8: Water;</li> <li>• Chapter 9: Historic Environment;</li> <li>• Chapter 10: Landscape and Visual Effects;</li> <li>• Chapter 11: Soils and Geology;</li> <li>• Chapter 12: Land Use;</li> <li>• Chapter 13: People and Communities;</li> <li>• Chapter 14: Major Accidents; and</li> <li>• Chapter 15: Cumulative Effects.</li> </ul>
Chapter 16	Chapter 16 Environmental Management and Mitigation sets out the process for the environmental management of the project, and outlines how mitigation and other measures would be secured and implemented. Chapter 16 includes the Register of Environmental Actions and Commitments (REAC), which lists all of the environmental actions and commitments that have been included within the ES.
Chapter 17	Chapter 17 Summary of Residual Effects provides a list of the likely significant effects that are predicted to remain after mitigation has been implemented.
Glossary and Abbreviations	Contains definitions of engineering, environmental and planning terms used in the ES and a full list of abbreviations.
<b>Volume C: Figures</b>	
Figures	Graphics supporting the ES chapters, illustrating the project and environmental information. The figure reference corresponds to the relevant ES chapter (e.g. Figure 7.1 relates to Chapter 7).



Volume / Chapter	Contents
<b>Volume D: Appendices</b>	
Appendices	Technical reference information supporting the ES chapters, such as assessment tables and detailed background data. The appendix number corresponds to the relevant ES chapter (e.g. Appendix 8.1 relates to Chapter 8).

## 1.6 ES Compliance

- 1.6.1 Part 1 of Schedule 4 of the EIA Regulations sets out the information which is required to be contained in the ES to assess the environmental effects of a proposed development. Appendix 1.3 summarises where the specified information can be found within the ES.
- 1.6.2 Chapter 16 Environmental Management and Mitigation includes the Register of Environmental Actions and Commitments (REAC). This has been produced to record the actions and commitments that have been made by Esso during the development of the project. It includes the embedded measures, which form part of the design, and the good practice measures, which are documented within the Code of Construction Practice (CoCP). It also includes mitigation identified through the environmental assessment that is required to mitigate likely significant environmental effects.
- 1.6.3 All measures identified in the REAC would be secured as appropriate, through the requirements of the DCO, (for example through a requirement to comply with the CoCP certified by the Secretary of State after examination). Once development consent is granted, some requirements may require the submission of further strategies and plans for approval by discharging authorities (based on evidence provided to them by Esso) and would require compliance with the strategies and plans as approved.
- 1.6.4 In addition, an outline Construction Environmental Management Plan (CEMP) has been drafted alongside the ES. The contractor would be responsible for developing and implementing the CEMP, to create a framework for compliance with the actions and commitments made within the CoCP and REAC. The performance of the contractor would be supervised by Esso. Further details can be found in Chapter 16 Environmental Management and Mitigation.

## 1.7 The Assessment Team

- 1.7.1 The EIA was undertaken, managed and compiled by experienced and competent environmental professionals employed by Jacobs and approved specialist suppliers where required. Professional qualifications and relevant professional memberships of the ES Environmental Coordinators and the chapter authors are provided in Appendix 1.4.

## 1.8 References

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

Planning Inspectorate (2015). Advice Note Seventeen: Cumulative effects



assessment. Version 1.

Planning Inspectorate (2016) Advice Note Six: Preparation and submission of application documents. Version 7.

Planning Inspectorate (2017a). Advice Note Seven: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping. Version 6.

Planning Inspectorate (2017b). Advice Note Eighteen: The Water Framework Directive. Version 1.

Planning Inspectorate (2018a). Transboundary screening document produced by the Planning Inspectorate on behalf of the Secretary of State for the purposes of Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. Reference EN070005. 02/10/2018  
<https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN070005/EN070005-000092-SLPL%20%E2%80%93%20Regulation%2032%20Transboundary%20Screening.pdf>

Planning Inspectorate (2017). Advice Note Ten: Habitat Regulations Assessment relevant to Nationally Significant Infrastructure Projects. Version 8.



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