

A585 Windy Harbour to Skippool Improvement Scheme

TR010035

6.1 Environmental Statement Chapter 1: Introduction

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

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Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

A585 Windy Harbour to Skippool Improvement Scheme

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ENVIRONMENTAL STATEMENT CHAPTER 1: INTRODUCTION

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1 INTRODUCTION

1.1 Overview of this Report

1.1.1 Highways England has been investigating options to alleviate a major bottle neck along the A585 between the Windy Harbour junction and the Skippool junction near Poulton-le-Fylde, Lancashire. Highways England announced on 24 October 2017 that an offline 'southern' bypass solution between the 2 junctions was the preferred solution (hereafter referred to as the 'Scheme').

1.1.2 The Scheme is a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008 as amended. Therefore, an application for Development Consent Order (DCO) is required to be submitted by Highways England to the Secretary of State (SoS) for Transport via the Planning Inspectorate (the Inspectorate). The application would be accompanied by a statutory Environmental Statement (ES) (**this report**) prepared in accordance with the Infrastructure Planning (Environmental Impact Assessment (EIA)) Regulations 2017 (SI No. 572) (hereafter referred to as the 'EIA Regulations').

1.1.3 The aim and purpose of an EIA is to protect the environment by ensuring that the decision-maker, when deciding whether to grant permission for a scheme, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision-making process. The stages in EIA are as follows:

- Data Review - draw together and review available data
- Screening – determine whether a project constitutes EIA development
- Scoping - identify significant issues and determine the subject matter of the EIA
- Baseline surveys – collate baseline data, undertake baseline surveys and monitoring to confirm the existing conditions
- Consultation - seek feedback from consultees and the public in relation to key environmental issues, methodology adopted and design approaches
- Assessment and iteration - assess likely effects of the Scheme, evaluate alternatives, provide feedback to design team on adverse impacts, incorporate mitigation, assess effects of mitigated development
- Preparation of the ES and the Non-Technical Summary
- Additionally, during the EIA process opportunities to deliver enhancements would be explored in consultation with appropriate stakeholders

1.1.4 The bullet points above are all covered and included within this report.

1.2 Overview of the Scheme

1.2.1 The A585(T) is a single carriageway trunk road, which provides the only viable access from the motorway network (M55 at Junction 3) into Fleetwood and its urban areas. As a result, it suffers from extreme congestion. The Government's Autumn Statement in 2014 identified the need for an Improvement Scheme along the A585 between Windy Harbour and Skippool to ameliorate the impact of traffic on the route between

the 2 villages and to remove a major bottleneck.

- 1.2.2 The Scheme comprises an offline bypass between the A585 at Windy Harbour and Skippool villages in Poulton-le-Fylde. The road bypasses the village of Little Singleton.
- 1.2.3 The Scheme follows a route to the south of the ribbon development between Skippool and Little Singleton. It is 4.85km in length, would bypass 2 of the most significant junction constraints and provide dual-carriageway capacity. Figure 1.1 shows the geographic location of the Scheme and the surrounding road network. Figure 2.1 within Chapter 2: Description of the Scheme (document reference TR010035/APP/6.2) presents the Scheme.
- 1.2.4 The landscape surrounding the Scheme is low lying and coastal characterised by arable fields, pasture, drainage ditches and small to medium sized blocks of mixed woodland. The Wyre Way regional trail runs east from the edge of the Wyre Estuary Country Park along the southern bank of the Wyre Estuary as far as Little Singleton. Further to this, there is publicly accessible land at The Wyre Estuary Country Park which is located north of Skippool. There is a greater density of residential properties surrounding the western half of the Scheme with farmland becoming more prevalent to the east. To the south of Little Singleton and east of the B5260 there is an area of non-designated parkland. There are 8 Noise Important Areas along Breck Road, Mains Lane and Fleetwood Road within the vicinity of the Scheme.
- 1.2.5 Environmental constraints (refer to Figure 1.2) within the locality of the Scheme include: the Morecambe Bay and Duddon Estuary Special Protection Area (SPA); Morecambe Bay Ramsar site; Morecambe Bay Site of Special Scientific Interest (SSSI); and the Wyre and Lune recommended Marine Conservation Zone (rMCZ) approximately 500m to the north of the Scheme. There are also 3 Biological Heritage Site (BHS) designations associated with the Wyre Estuary (important at a local level) within close proximity to the Scheme. The Main Dyke watercourse lies to the west of the Scheme and there are areas of low lying floodplain and some areas of flood zone 3 associated with Main Dyke and the Wyre Estuary coinciding with the Scheme footprint. Heritage features include the Conservation Areas at Poulton-le-Fylde and Singleton as well as isolated Grade II Listed Buildings.

1.3 **Legislative and Policy Framework**

The Planning Act 2008

- 1.3.1 The Scheme is a NSIP within Sections 14(1)(h) and 22(1) of the Planning Act 2008. Under Section 22 an NSIP must fall within one of the three categories specified, which are expressly stated to be alternatives. This Scheme is construction of a highway in a case within the meaning of Section 22(1)(a). Whilst the Scheme includes some alteration and improvement of the existing A585, the new carriageway will follow a different alignment requiring construction of sections of new highway with a speed limit in excess of 50 miles per hour on an area in excess of 12.5 hectares. The Scheme is wholly located in England and Highways England Company Ltd, being a strategic highways authority, will be the highway authority for the highway to be constructed as part of the Scheme. The Scheme therefore complies with the requirements of Section 22(2) and 22(4) of the 2008 Act.

National Networks National Policy Statement

- 1.3.2 In December 2014, the National Road and Rail Networks: National Policy Statement for National Networks (NN NPS) was published. The NN NPS sets out the policy which would be used by the Inspectorate and the SoS to make a decision on all major road and rail projects. The Applicant would have regard to this and the preparation of this ES has been informed by the NPS. The NN NPS also guided the design of the Scheme.

The EIA Regulations

- 1.3.3 The EIA Regulations apply to NSIPs and require an assessment of the effects of certain public and private projects on the environment if they meet certain thresholds.
- 1.3.4 To determine whether a scheme requires an assessment and therefore constitutes EIA development 'screening' is required against thresholds outlined in the EIA Regulations.
- 1.3.5 EIA Screening undertaken for the Scheme concluded that the Scheme constituted EIA Development under Schedule 2, Regulation 10 (f) (Construction of Roads) of the EIA Regulations and an ES was required to be prepared to support the DCO application.

1.4 EIA Process, Structure of this ES and Viewing the ES

- 1.4.1 As noted above, EIA is the process of compiling, evaluating and presenting environmental information about the likely significant effects, both adverse and beneficial of a scheme. The purpose of the assessment is to identify and mitigate likely environmental impacts and to provide decision-makers (in this case the Inspectorate / SoS) and statutory consultees with the environmental information they require to determine an application for consent.
- 1.4.2 Additionally, during the EIA process, opportunities to deliver enhancements are explored in consultation with appropriate stakeholders. The Highways England licence (April, 2015) states within paragraph 4.2g that when exercising its functions and complying with its legal duties and other obligations, it should "*Minimise the environmental impacts of operating, maintaining and improving its network and seek to protect and enhance the quality of the surrounding environment*".
- 1.4.3 The structure of this ES is outlined in the contents page. Each chapter is presented as a separate DCO document including the relevant supporting figures. Some of the chapters also need to be read in conjunction with Technical Appendices, their individual DCO document reference numbers are outlined in the contents page.
- 1.4.4 Following acceptance of the application by the Inspectorate, consultees and the local community would be able to review the documents and provide representations. A copy of the ES would be made available for inspection at the Wyre Civic Centre and Thornton Library during normal opening hours:

Wyre Council
Civic Centre
Breck Road
Poulton-le-Fylde
Lancashire
FY6 7PU

Thornton Library
Victoria Road East,
Thornton-Cleveleys,
Lancashire
FY5 3SZ

- 1.4.5 Copies would also be available directly from Highways England. Paper copies would be made available at a reasonable cost to cover printing and postage. Electronic copies of this ES and hard copies of the Non-Technical Summary (document reference TR010035/APP/6.19) can be made available on request for free. An electronic copy would also be available on the Inspectorates website <https://infrastructure.planninginspectorate.gov.uk/projects/north-west/a585-windy-harbour-to-skipool-improvement-scheme/?ipcsection=overview> as well as the Scheme website. Further details about making a representation and how to get involved in the planning process are provided in the Inspectorates Advice Note 8 (December 2016¹) Overview of the nationally significant infrastructure planning process for members of the public and others.

1.5 Competent Expert Evidence

- 1.5.1 The EIA Regulations state that ‘(4) *In order to ensure the completeness and quality of the environmental statement— (a) the applicant must ensure that the environmental statement is prepared by competent experts; and (b) the environmental statement must be accompanied by a statement from the applicant outlining the relevant expertise or qualifications of such experts*’.
- 1.5.2 Evidence of competency is provided in Appendix 1.1: Competent Expert Evidence (document reference TR010035/APP/6.1.1).

1.6 References

Department for Transport (2015) *Highways England: Licence*

Department for Transport (2014) *National Networks National Policy Statement*

Planning Inspectorate (2016) *Advice Note 8: Overview of the nationally significant infrastructure planning process for members of the public*

The Highway and Railway (Nationally Significant Infrastructure Project) Order 2013

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

The Planning Act 2008

1.7 Abbreviations

- 1.7.1 The following abbreviations have been used throughout this ES.

Abbreviation	In Full
AADT	Annual Average Daily Traffic
AAWT	Annual Average Weekday Traffic.
ADMS	Atmospheric Dispersion Modelling System

¹ <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/04/Advice-note-8.0.pdf>

Abbreviation	In Full
ALC	Agricultural Land Classification
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
ARN	Affected Road Network
AURN	Automatic Urban and Rural Network
bgl	Below ground level
BGS	British Geological Survey
BHS	Biological Heritage Site
BMVL	Best and Most Versatile Land
CEMP	Construction Environmental Management Plan
Ch	Chainage
CIEEM	Chartered Institute of Environmental and Ecological Management
CIEH	Chartered Institute of Environmental Health
CIfA	Chartered Institute for Archaeologists
CIRIA	Construction Industry Research and Information Association
CIWEM	Chartered Institute of Water and Environment Managers
CL:AIRE	Contaminated Land: Application in the Real Environment
CLR	Contaminated Land Report
CMLI	Chartered Member of the Landscape Institute
CO ₂	Carbon Dioxide
CRRN	Compliance Risk Road Network
CRTN	Calculation of Road Traffic Noise
DBA	Desk-based Assessment
dB	Decibel
DCO	Development Consent Order
Defra	Department for the Environment, Food and Rural Affairs
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges

Abbreviation	In Full
DTM	Digital Terrain Model
EA	Environment Agency
EFT	Emissions Factors Toolkit
EIA	Environmental Impact Assessment
EPA	Environmental Protection Act
EPS	European Protected Species
EPSL	European Protected Species License
EQS	Environmental Quality Standard
ES	Environmental Statement
FRA	Flood Risk Assessment
GIS	Geographic Information Systems
GLVIA3	Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (Landscape Institute/ Institute of Environmental Management and Assessment, 2013)
HADDMS	Highways Agency Drainage Data Management System
HAWRAT	Highways Agency Water Risk Assessment Tool
HER	Historic Environment Record
HDV	Heavy Duty Vehicle
HGV	Heavy Goods Vehicle
IAN	Interim Advice Note
IAQM	Institute of Air Quality Management
JNCC	Joint Nature Conservation Committee
LAQM	Local Air Quality Management
LBAP	Local Biodiversity Action Plans
LB	Listed Building
LCA	Landscape Character Area
LCC	Lancashire County Council
LCT	Landscape Character Type
LGS	Local Geological Site
LLFA	Lead Local Flood Authority
LOAEL	Lowest Observed Adverse Effect Level

Abbreviation	In Full
LPA(s)	Local Planning Authority(ies)
LQM	Land Quality Management
LTT	Long Term Trends
LVIA	Landscape and Visual Impact Assessment
MMO	Marine Management Organisation
MMP	Materials Management Plan
NCA	National Character Area
NIA	Noise Important Area
NMU	Non-Motorised User
NN NPS	National Networks National Policy Statement
NO ₂	Nitrogen Dioxide
NOEL	No Observed Adverse Effect Level
NO _x	Oxides of Nitrogen
NERC	Natural Environment and Rural Communities
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NPSE	Noise Policy Statement for England
NSIP	Nationally Significant Infrastructure Project
NTEM	National Trip End Model
NTM	National Transport Model
ONS	Office for National Statistics
PCM	Pollution Climate Mapping
PEIR	Preliminary Environmental Information Report
PM ₁₀	Particulate Matter (less than 10 microns in diameter)
PPE	Personal Protection Equipment
PRoW	Public Right of Way
PSSR	Preliminary Sources Study Report
RBMP	River Basin Management Plan
RBS	Route Based Strategy
RIGS	Regionally Important Geological and Geomorphological Sites

Abbreviation	In Full
RIS	Regional Investment Strategy
rMCZ	Recommended Marine Conservation Zone
S4ULs	Suitable for Use Levels
SAC	Special Area of Conservation
SAQAP	Scheme Air Quality Action Plan
SLA	Special Landscape Area
SLR	Single Lens Reflex (camera)
SMP	Soil Management Plan
SOAEL	Significant Observed Adverse Effect Level
SoS	Secretary of State
SPA	Special Protection Area
SPRS	South Pennines Route Strategy
SPZ	Source Protection Zone
SRN	Strategic Road Network
SSSI	Site of Special Scientific Interest
STEAM	Scarborough Tourism Economic Activity Monitor
SuDS	Sustainable Drainage Systems
TAG	Transport Analysis Guidance
TCA	Townscape Character Assessment
TMP	Traffic Management Plan
TPO(s)	Tree Preservation Order(s)
TRL	Transport Research Laboratory
TTM	Temporary Traffic Management
UAEL	Unacceptable Adverse Effect Level
UKBAP	UK Biodiversity Action Plan
ULCT	Urban Landscape Character Type
ULEV	Ultra-Low Emission Vehicle
ULSD	Ultra-Low Sulphur tax-exempt Diesel
VDM	Variable Demand Modelling
WFD	Water Framework Directive
ZTV	Zone of Theoretical Visibility

Abbreviation	In Full
ZoI	Zone of Influence

1.8 Glossary

1.8.1 The following technical terms have been used throughout this ES. This Glossary provides definitions for those terms.

Term	Meaning
1% Flood Level	River or sea water level that has a 1% or 1 in 100 chance of being reached in any 1 year
Adverse	A negative/harmful effect
Affected Road Network	Roads which experience changes based on the criteria outlined in Volume 11, Section 3, Part 1 of the DMRB HA207/07 between the without scheme scenario to the with scheme scenario
Air Quality Management Area	A Local Authority must designate an Air Quality Management Area (AQMA) if any of the Air Quality Objectives set out in the regulations are not likely to be met over a relevant time period
Air Quality Strategy	The Air Quality Strategy for England, Scotland, Wales and Northern Ireland describes the plans drawn up by the Government and the Developed Administrations to improve and protect ambient air quality in the UK in the medium-term. The Strategy sets objectives for the main air pollutants to protect health. Performance against these objectives is monitored where people regularly spend time and might be exposed to air pollution
Ambient Noise	Ambient noise is the total sound in a given situation at a given time usually composed of sound from many sources, near and far
Annual Average Daily Traffic	The total volume of vehicle traffic of a road for a year divided by 365 days
Aquifer	An underground layer of water-bearing rock or unconsolidated materials (gravel, sand or silt) from which groundwater can be extracted
Aquitard	A geological formation or layer of rock that lies adjacent to an aquifer and that allows only a small amount of liquid to pass through it
Archaeological potential	The potential for places, structures, or landscapes to hold information regarding previously unknown archaeological or historic knowledge which would enhance the understanding of a place and its development
Atmospheric Dispersion Modelling System	Dispersion model for the prediction of roadside pollutant concentrations
Automatic Urban and	The UK's largest automatic monitoring network. It is the main network used for compliance reporting against the Ambient Air

Term	Meaning
Rural Network	Quality Directives
A-weighting	In addition to its non-linear amplitude response, the human ear has a non-linear frequency response; it is less sensitive at low and high frequencies and most sensitive in the range 1 kHz to 4 kHz (cycles per second). The A-weighting is applied to measured sound pressure levels so that these levels correspond more closely to the subjective response. A-weighted noise levels are often expressed in dB(A)
Baseline	The conditions against which potential effects arising from the Scheme are identified and evaluated
Baseline year	For an assessment of noise and vibration, the baseline year is taken as the opening year of the road project
Basic Noise Level (BNL)	The BNL is a measure of source noise at a reference distance of 10m from the nearside carriageway edge. It is determined from obtaining the estimated noise level from the 18-hour flow then applying corrections for vehicle speed, percentage of heavy vehicles, gradient and road surface as described in CRTN
Biodiversity	The variety of life. The term embraces the full range of habitats, species, and the variation found within species (including genetic variation)
Bund	A barrier, dam or mound used to contain or exclude water (or other liquids). Can either refer to a bund made from earthworks material, sand etc. or a metal/concrete structure surrounding, for example, a fuel tank
British Geological Survey	The British Geological Survey (BGS) is a partly publicly funded body which aims to advance geoscientific knowledge of the United Kingdom landmass and its continental shelf by means of systematic surveying, monitoring and research
Calculation of Road Traffic Noise	The technical memorandum issued by the Department of Transport and Welsh that describes the procedures for calculating noise from road traffic
Carbon Dioxide	A greenhouse gas
Compliance Risk Road Network	The localised monitoring results (Defra AURN Network) are compared with Defra's Pollution Climate Mapping model network. Where the 2 networks intersect is known as the compliance risk road network
Confining layer	Geological material with little or no permeability or hydraulic conductivity. Water does not pass through this layer or the rate of movement is extremely slow
Construction Environmental Management Plan	A Construction Environmental Management Plan sets out the intended methods of the effective management of potential environmental impacts arising during the construction of a project
Construction Design and	Construction Design and Management Regulations (commonly known as the CDM Regulations) were re-introduced in 2015,

Term	Meaning
Management	the revised Regulations are intended to make it easier for those involved in construction projects to comply with their health and safety duties
Contaminated Land: Application in Real Environments	CL:AIRE is an independent, not-for-profit organisation established to stimulate the regeneration of contaminated land in the UK by raising awareness of and confidence in practical, sustainable remediation technologies
Construction Industry Research and Information Association	CIRIA works across market sectors and disciplines to deliver a program of business improvement services and research activities pertaining to buildings and facilities, transport infrastructure and water and utilities
Contaminated Land Reports	Technical guidance on the management of contaminated land including how to investigate, assess and manage the risks
Cumulative Impact	The combined residual impact of a proposed scheme over the entirety of the scheme, as opposed to residual impact for individual sections of the scheme; also the combined impact with other schemes
Cyprinid	Family of freshwater fish including the carps and their relatives
Decibel	This is the unit of measurement used for sound pressure levels and noise levels are usually quoted in decibels (dB). The decibel scale is logarithmic rather than linear. The threshold of hearing is zero decibels while, at the other extreme, the threshold of pain is about 130 decibels. In practice these limits are seldom experienced and typical levels lie within the range of 30 dB(A) (a quiet night time level in a bedroom) to 90 dB(A) (at the kerbside of a busy street)
Department for the Environment, Food and Rural Affairs	The UK government department responsible for safeguarding the natural environment, supporting the food and farming industry, and sustaining a thriving rural economy
Design Manual for Roads and Bridges	The Design Manual for Roads and Bridges is a series of 15 volumes that provide standards, advice notes and other documents relating to the design, assessment and operation of trunk roads, including motorways in the UK. This includes Volume 11 - Environmental Assessment
Designated heritage receptor	A heritage receptor which is protected under legislation such as the Planning Act 1990. These are nationally important receptor which are protected under law
Design Year	In the case of this Scheme, 15 years after opening
Development Consent Order	A Development Consent Order is the means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects
Dewatering	The process of removing groundwater from an aquifer

Term	Meaning
Do-Minimum	Future situation assuming no Scheme is provided but that maintenance is on-going
Do-Something	Future situation with the Scheme provided
Draft order limits	Defines the constraints, in which the construction works for the Scheme will stay within, during development
Driver Stress	Driver stress is defined for the purposes of environmental assessment as the adverse mental and physiological effects experience by a driver traversing a road network
Ecology	The study of interactions between organisms and their environment
Emissions Factors Toolkit	The Emissions Factors Toolkit is published by Defra and the Devolved Administrations and allows users to calculate road vehicle pollutant emission rates for a specified year, road type, vehicle speed and vehicle fleet composition
Environmental Impact Assessment	Environmental Impact Assessment is a key aspect of many large-scale planning applications which identifies the potential environmental effects of a development project
Environmental Quality Standard	An allowable ratio of pollutant to measured water environment. Exceeding the standard results in constrained use of that body of water. The stated level of quality must be maintained
Environmental Lighting Zone	There are 4 environmental lighting zones to establish a basis for outdoor lighting regulations. The environmental zone rating can be used to help ensure that the lighting goals of an environment are appropriately defined and met, but not exceeded
Environmental Statement	An Environmental Statement is the written material submitted to the local planning authority in fulfilment of the EIA regulations
Facade Sound Level	A facade sound level is that determined 1 metre in front of a window or door in a facade. Sound is reflected from hard surfaces in a similar manner to light by a mirror and the effect is to produce a slightly higher (about 2.5 dB) sound level than would occur if the building was not there. For façade levels at dwellings required for this assessment process, the level 1 metre from the façade should be calculated with a reflection correction
Free-Field Sound Level	The sound level which is measured or calculated, in the open, without any reflections from nearby surfaces. For free-field levels at dwellings required for this assessment process, the level 1m from the most exposed façade should be calculated without a reflection correction
Future Assessment Year	The future assessment year is the year between baseline and the 15th year where the maximum impact from the road project would occur
Heavy Duty Vehicle	Vehicles greater than 3.5 tonnes unladen weight

Term	Meaning
Heritage receptor	A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage receptors includes designated heritage receptors and receptors identified by the local planning authority (including local listing)
Hydraulic Conductivity	A measure of a material's capacity to transmit water. It is independent of the thickness and porosity of that material
Interim Advice Note	Interim Advice Notes are issued by Highways England from time to time. They contain specific guidance which shall only be used in connection with works on motorways and trunk roads in England
Institute of Air Quality Management	The Institute of Air Quality Management is the professional body for air quality professionals
LA ₁₀ index	LA ₁₀ is the A-weighted sound level in dB that is exceeded 10% of the measurement period. This is the standard index used within the UK to describe traffic noise
LA ₉₀ index	The background noise level is commonly quoted using the LA ₉₀ index. This is the A-weighted sound level in dB that is exceeded 90% of the measurement period
LA _{10,18hour} index	The LA _{10,18h} noise level is arithmetic mean of all the levels of LA ₁₀ during the period from 06:00 to 24:00. From research it has been found that subjective response to road traffic noise is closely linked to higher noise levels experienced and is correlated well with the LA _{10,18h} index
L _{Aeq} index	The equivalent continuous sound level L _{Aeq} is the level of a notional steady sound, which at a given position and over a defined period of time, would have the same A-weighted acoustic energy as the fluctuating noise
L _{Amax} index	The maximum A-weighted level measured during a given time period
Land Quality Management	LQM is a specialist environmental consultancy based in Nottingham (UK) with an international reputation for assessing and managing the risks posed to human health and the environment by contaminants in soil
Landscape	An area, as perceived by people, the character of which is the result of the action and interaction of natural and/or human factors
Landscape and Visual Impact Assessment	A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as an environmental resource in its own right and on views and visual amenity
Landscape Character Areas	Areas of the landscape defined by their physical and cultural elements
Landscape receptors	Defined aspects of the landscape resource that have the potential to be affected by a proposal

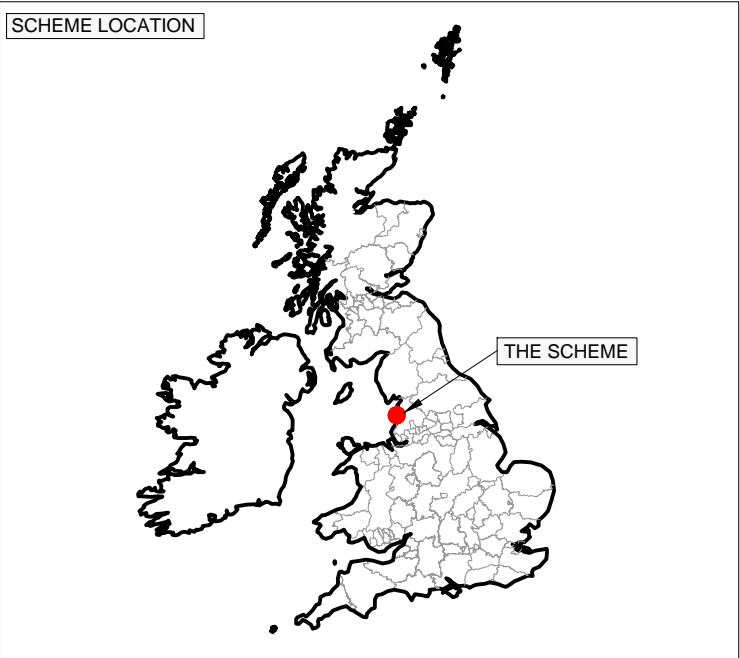
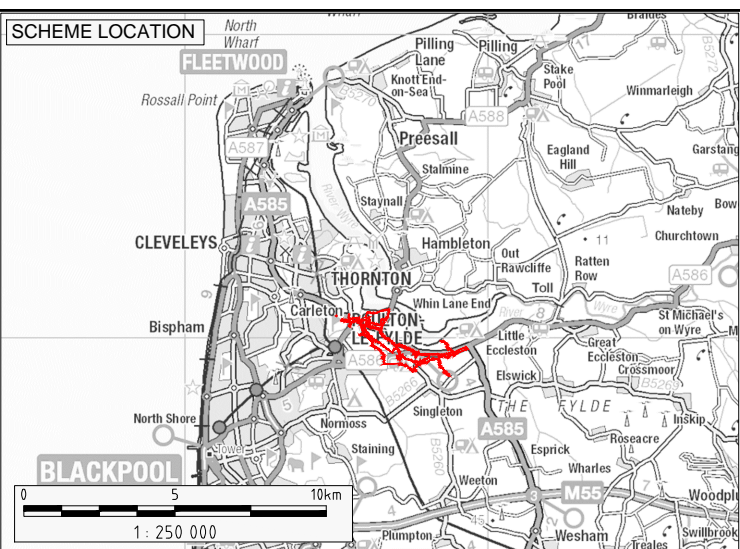
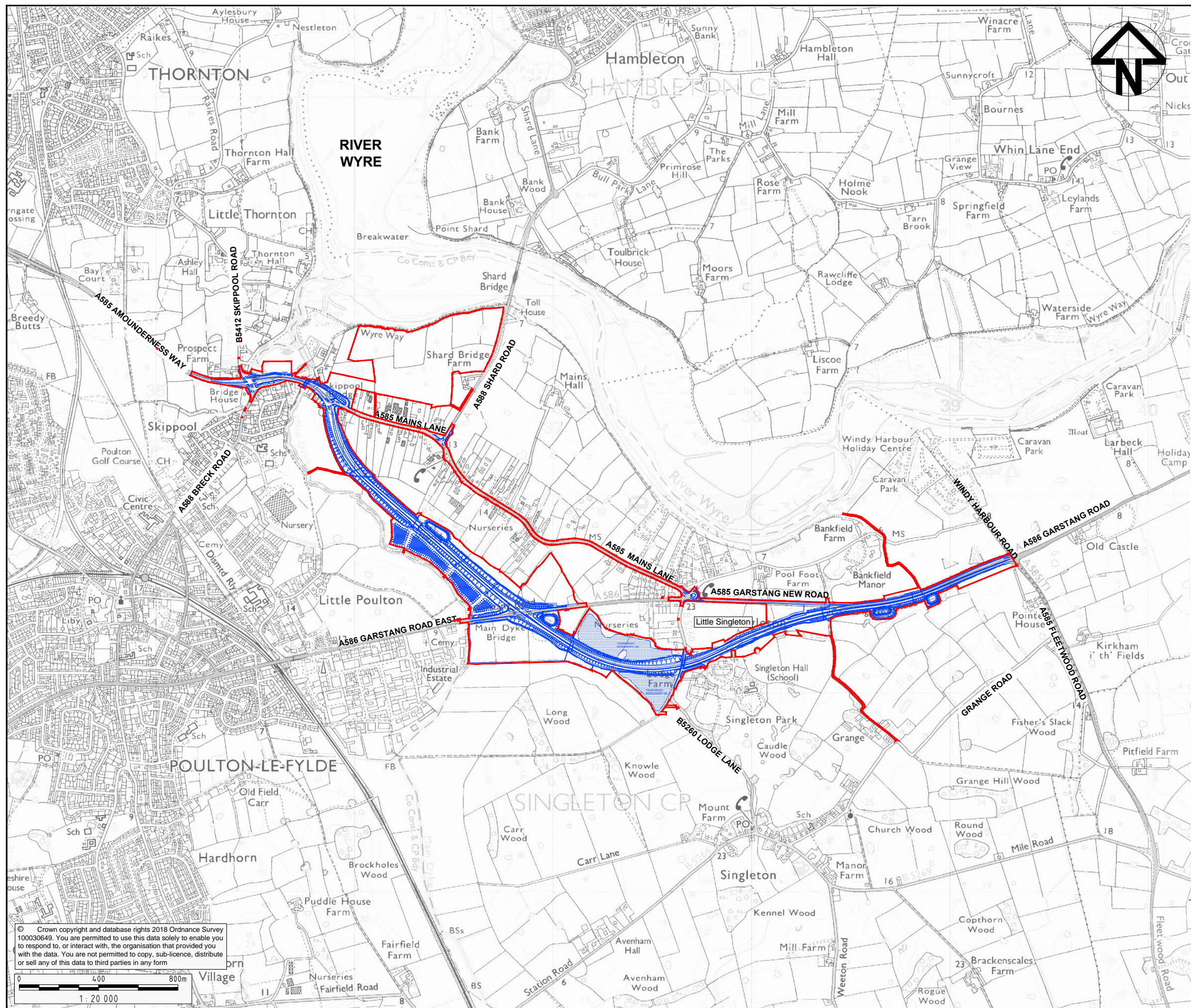
Term	Meaning
Landscape value	The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons
LiDAR	A form of remote sensing which uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth. A shortened version of Light Detection and Ranging
Limits of Deviation	The tolerances, both laterally and vertically, that any parts of the works can be constructed from the lines and situations shown on the works plans and the levels shown on the engineering drawings and sections
Local Air Quality Management	The Local Air Quality Management (LAQM) process requires Local Authorities to periodically review and assess the current and future quality of air in their areas
Long Term Trends	The IAN 170/12v3 provides updated air quality advice for users of DMRB Volume 11, Section 3, Part 1 'Air Quality' and enables Highways England scheme assessments to take into account the impact of future alternative nitrogen dioxide projections
Mitigation	Measures including any process, activity, or design to avoid, reduce, remedy or compensate for negative environmental impact or effects of a Scheme
National Character Area	This is a natural subdivision of England based on a combination of landscape, biodiversity, geodiversity and economic activity and defined by Natural England
National Networks National Policy Statement	Sets out the need and government policies for nationally significant infrastructure rail and road projects for England
National Planning Policy Framework	Part of the Governments reforms to make the planning system less complex, more accessible and to promote sustainable growth. The NPPF sets out the Government's core policies and principles with respect to land use planning
NMU	Non-Motorised Users
L_{night}	The L_{night} index in this document is a facade noise index derived from the $L_{A10,18h}$ index using TRL conversion method
$L_{night,outside}$	For the purpose of night-time noise assessment in this document, the $L_{night,outside}$ index is the equivalent continuous sound level $L_{Aeq,8h}$ for the period 23:00 to 07:00 hours assessed outside a dwelling and is free-field
Nitrogen Dioxide	Combustion processes emit a mixture of nitrogen oxides (NO_x) and primarily nitric oxide (NO) which is quickly oxidised in the atmosphere to nitrogen dioxide (NO_2). Nitrogen dioxide has a variety of environmental and health impacts. It is a respiratory irritant which may exacerbate asthma and possible increase susceptibility to infections
Non-designated	A heritage receptor which has no statutory protection. These receptors are considered as locally important, but do not

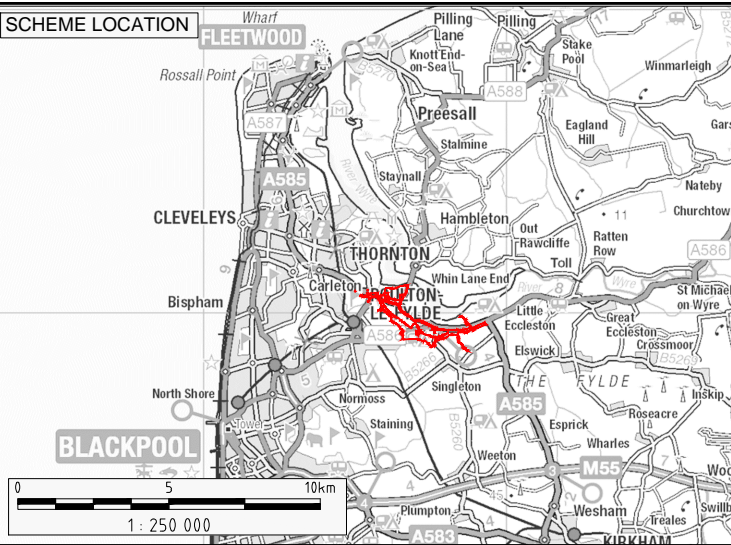
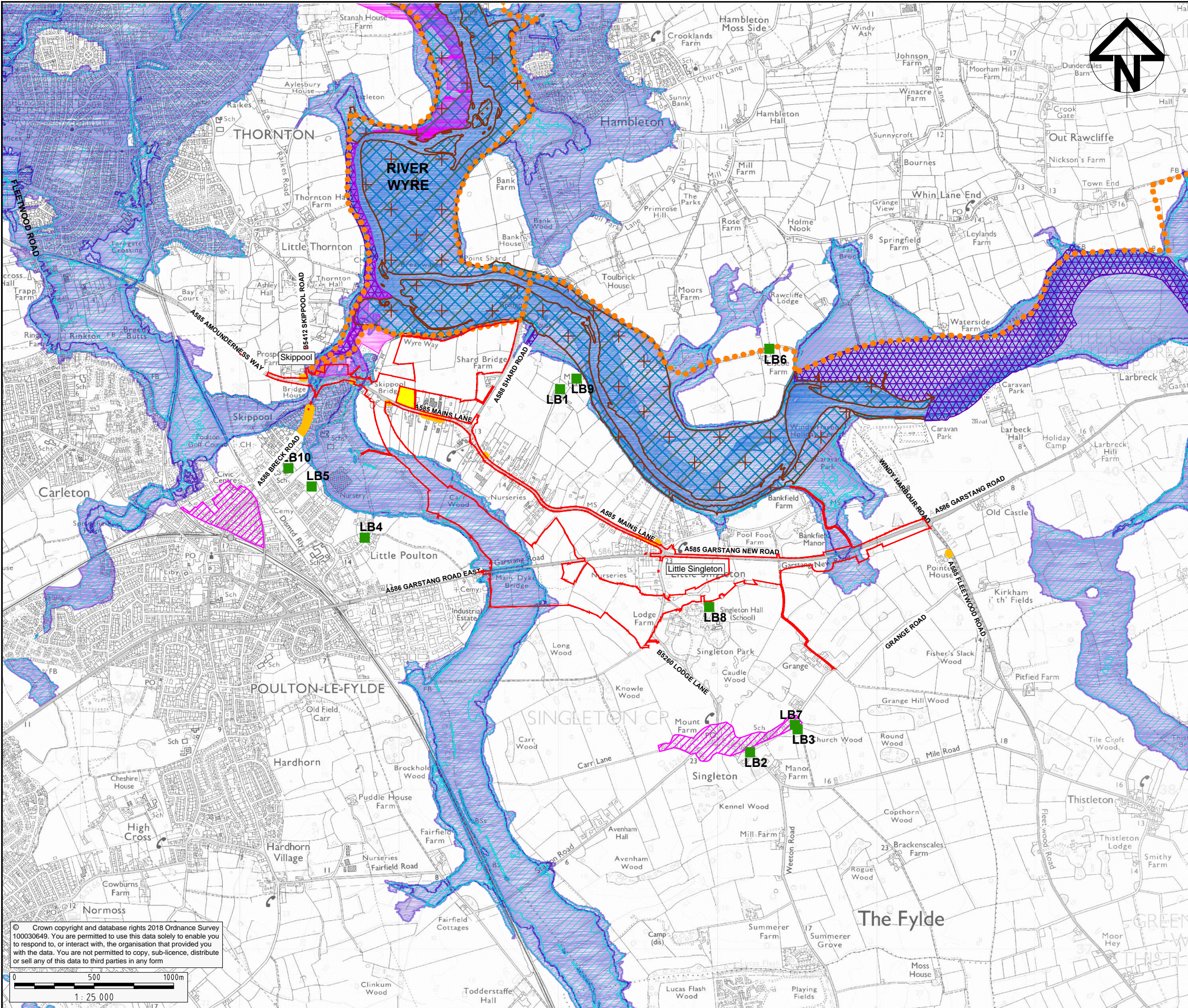
Term	Meaning
receptor	warrant a national importance to be designated under legislation
Nuisance	In this document nuisance is intended to generally refer to 'bother' or 'annoyance' and is not necessarily the same as that used in some statutory documents
Opening Year	In the case of this Scheme, assumed to be 2022
Oxides of Nitrogen	Combustion processes emit a mixture of nitrogen oxides (NO _x) and primarily nitric oxide (NO) which is quickly oxidised in the atmosphere to nitrogen dioxide (NO ₂)
Particulate matter less than 10 microns in diameter	Airborne particulate matter includes a wide range of particle sizes and different chemical constituents. It consists of both primary components, which are emitted directly into the atmosphere, and secondary components, which are formed within the atmosphere as a result of chemical reactions. Of greatest concern to public health are the particles small enough to be inhaled into the deepest parts of the lung
Personal Protection Equipment	Equipment that will protect the user against health or safety risks at work
Pollution Climate Mapping	A collection of models designed to fulfil part of the UK's EU Directive (2008/50/EC) requirements to report on the concentrations of particular pollutants in the atmosphere
Preliminary Environmental Information Report	Information referred to in Part 1 of Schedule 4 (information for inclusion in environmental statements) which: a) has been complied by the applicant; and b) is reasonably required to assess the environmental effects for the development (and of any associated development). The focus of the PEIR is to enable the local community to understand the environmental effects of the proposed development so as to inform their responses regarding the proposed development. Provision of PEIR may assist in the identification of potential issues, enabling these to be addressed at an earlier stage in the pre-application consultation
Preliminary Sources Study Report	A Geotechnical Report prepared for Highway schemes which covers the geotechnical risks, implications and feasibility of the Scheme
Public Right of Way	This is a path that anyone has the legal right to use on foot, and sometimes using other modes of transport. Legally, a Public Right of Way is part of the Queen's highway and subject to the same protection in law as all other highways, including trunk roads
Residual Impact	Effects on the environment that occur after mitigation of potential impacts have been implemented
Salmonid	Family of fish including salmon and trout
Scheme Air Quality Action	Where a scheme is provisionally identified as having a high risk of non-compliance IAN 175/13 describes the mechanism for

Term	Meaning
Plan	the production of Scheme Air Quality Action Plans containing actions designed to further mitigate scheme impacts and so reduce the risk of non-compliance
Setting	The surroundings in which a heritage receptor is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral
Source Protection Zone	An Environment Agency designation to identify and protect groundwater supplies. There are 3 zones – Inner (defined as the 50 day travel time from any point below the water table to the source), Outer (defined by a 400 day travel time from a point below the water table) and Source Catchment (defined as the area around a source within which all groundwater recharge is presumed to be discharged at that source)
Stakeholder	An organisation or individual with a particular interest in the scheme
Statutory Consultees	Individuals or groups which are contacted and requested to provide information or comment on a scheme, legally recognised under statute
Study Area	The spatial area within which environmental effects are assessed i.e. extending a distance from the scheme footprint in which environmental effects could occur (this may vary between topics)
Transport Analysis Guidance	WebTAG provides information on the role of transport modelling and appraisal. The guidance provides advice on how to: set objectives and identify problems, develop potential solutions, create a transport model for the appraisal of the alternative solutions and how to conduct an appraisal which meets the department's requirements. Projects or studies that require government approval are expected to make use of this guidance
Tranquility	A state of calm and quietude associated with peace, considered to be a significant asset of landscape
Tree Preservation Order	An order made under the Town and Country Planning Act 1990 to protect trees
Ultra-Low Emission Vehicle	The UK government has recently defined an Ultra Low Emission Vehicle (ULEV) as one which emits 75g CO ₂ /km or less
Ultra-low Sulphur tax-exempt diesel	A diesel fuel with substantially lowered Sulphur content
Unproductive strata	Rock layers that are largely unable to provide usable water supplies and are unlikely to have surface water and wetland ecosystems dependent on them.

Term	Meaning
Visual Amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area
Visual Receptors	People with views of the development or associated activities. These are located within the zone of theoretical visibility and are typically residents, motorists, pedestrians, recreational users in residential areas on publicly accessible roads, footpaths and open spaces
Zone of Visual Influence	This is the area within which activities of the Scheme, whether temporary or permanent are likely to be visible

1.9 **Figures**

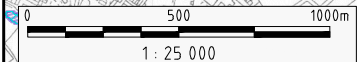




ID	Name
LB1	Mains Hall
LB2	Former Fire Engine House at Corner of Church Road
LB3	Church of St Anne
LB4	End Cottage Old Farm
LB5	The Manor
LB6	Liscoe
LB7	Lychgate to Church of St Anne
LB8	Ice House at Singleton Hall
LB9	Dovecote in Field, Circa 150m north of Mains Hall
LB10	Former Chapel of St John And Attached Priest's House
CA1	Poulton-le-Fylde Conservation Area
CA2	Singleton Conservation Area

KEY:	
	Draft Order Limits
	Area not included within Draft Order Limits
	Wyre Way
	Wyre Estuary Country Park
	Noise Important Area
	Morecambe Bay and Duddon Estuary Special Protection Area
	Morecambe Bay Ramsar Site
	Morecambe Bay Site of Special Scientific Interest
	Wyre and Lune recommended Marine Conservation Zone
	Biological Heritage Site
	Flood Zone 2
	Flood Zone 3
	Grade II Listed Building
	Conservation Area

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									A585 WINDY HARBOUR TO SKIPPOOL IMPROVEMENT SCHEME		S8 - DCO SUBMISSION		0	
									Drawing Title		Scale		Date	
									ENVIRONMENTAL STATEMENT REGULATION 5(2)(a) INTRODUCTION: ENVIRONMENTAL CONSTRAINTS		J.NORMAN		OCT 2018	
											K.BURROWS			
											N.HENDERSON			
											TR010035		FIGURE 1.2	
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