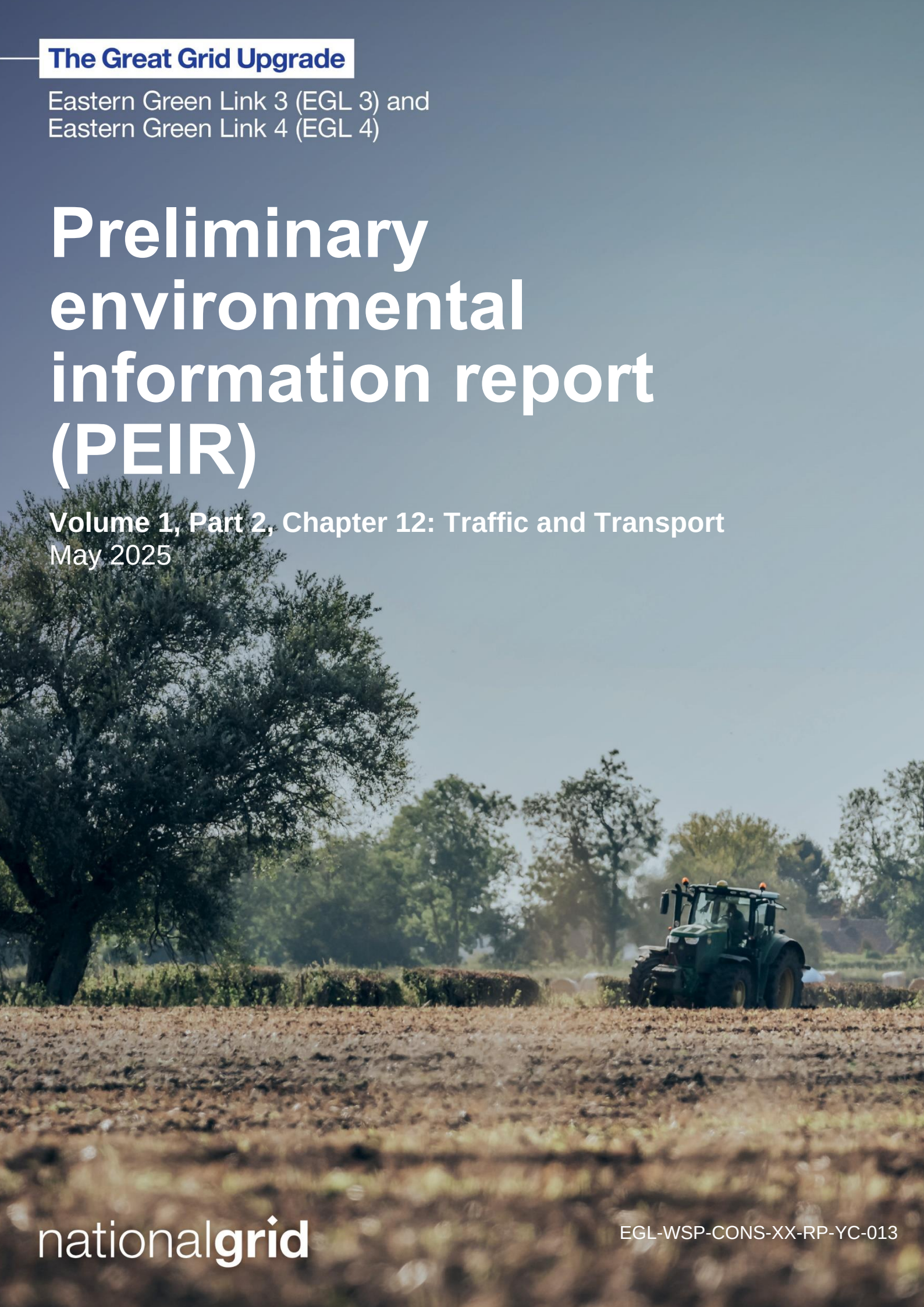
The Great Grid Upgrade

Eastern Green Link 3 (EGL 3) and
Eastern Green Link 4 (EGL 4)

Preliminary environmental information report (PEIR)

Volume 1, Part 2, Chapter 12: Traffic and Transport

May 2025



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EGL-WSP-CONS-XX-RP-YC-013

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12. Traffic and Transport

12.1 Introduction

12.1.1 This chapter presents the preliminary findings of the Environmental Impact Assessment (EIA) undertaken to date for the Eastern Green Link 3 (EGL 3) and Eastern Green Link 4 (EGL 4) English Onshore Scheme, with respect to traffic and transport. The preliminary assessment is based on information obtained to date. It should be read in conjunction with the description of the Projects provided in **Volume 1, Part 1, Chapter 4: Description of the Projects.**

12.1.2 This chapter describes the methodology used, the datasets that have informed the preliminary assessment, baseline conditions, environmental measures, and the preliminary traffic and transport effects that could result from the English Onshore Scheme during the construction phases. Specifically, it relates to the English onshore elements of EGL 3 and EGL 4 (the English Onshore Scheme) landward of Mean Low Water Springs (MLWS).

12.1.3 This chapter should be read in conjunction with:

- **Volume 1, Part 1, Chapter 4: Description of the Projects** (due to the close association between the Projects' design parameters, programme, and traffic and transport assessment);
- **Volume 1, Part 2, Chapter 13: Noise and Vibration** (with regards to the potential impacts and effects of road traffic associated with the English Onshore Scheme to Noise and Vibration receptors);
- **Volume 1, Part 2, Chapter 14: Air Quality** (with regards to the potential impacts and effects of road traffic associated with the English Onshore Scheme to Air Quality receptors);
- **Volume 1, Part 2, Chapter 15: Socio-economics, Recreation and Tourism** (with regards to the potential impacts and effects of road traffic associated with the English Onshore Scheme to socio-economic receptors); and
- **Volume 1, Part 2, Chapter 16: Health and Wellbeing** (with regards to the potential impacts and effects of road traffic associated with the English Onshore Scheme to health and wellbeing receptors).

12.1.4 This chapter is supported by the following figures:

- **Volume 3, Part 2, Figure 12-1: Traffic and Transport - Study Area;**
- **Volume 3, Part 2, Figure 12-2: Traffic and Transport - Public Rights of Way Network;**
- **Volume 3, Part 2, Figure 12-3: Traffic and Transport - National Cycle Network;**
- **Volume 3, Part 2, Figure 12-4: Traffic and Transport - Construction Access Routes;**
- **Volume 3, Part 2, Figure 12-5: Traffic and Transport – Personal Injury Collisions; and**

- **Volume 3, Part 2, Figure 12-6: Traffic and Transport - Sensitive Receptors**

12.1.5 This chapter is supported by the following appendices:

- **Volume 2, Part 1, Appendix 1.2.A: Regulatory and Planning Context;**
- **Volume 2, Part 1, Appendix 1.5.A: Outline Register of Design Measures**;
- **Volume 2, Part 1, Appendix 1.5.B**: **Outline Code of Construction Practice**;
- **Volume 2, Part 2, Appendix 2.12.A: Traffic and Transport - Scoping Opinion Response;**
- **Volume 2, Part 2, Appendix 2.12.B: Traffic and Transport – Baseline Conditions**
- **Volume 2, Part 2, Appendix 2.12.C: Traffic and Transport – Preliminary Construction Phase Traffic Flows;** and
- **Volume 2, Part 2, Appendix 2.12.D: Traffic and Transport - Preliminary Construction Phase Effects.**

Limitations

12.1.6 The information provided in this Preliminary Environmental Information Report (PEIR) is preliminary, the final assessment of potential significant effects would be reported in the Environmental Statement (ES). The PEIR has been produced to fulfil National Grid Electricity Transmission's (NGET) consultation duties in accordance with Section 42 of the PA2008 and enable consultees to develop an informed view of the preliminary potential significant effects of the English Onshore Scheme.

12.1.7 Baseline traffic flows have been obtained from a range of sources, including publicly available Department for Transport traffic data, project commissioned Automatic Traffic Count (ATC) surveys, and published data from other developments' planning applications. There are some gaps identified in the baseline data. The baseline data would be reviewed prior to the submission of the ES to ensure it is still considered suitable, and additional data collected where this PEIR identifies further assessment is required. This would include further engagement with the relevant highway authorities.

12.1.8 Driver delay during the construction phase would be assessed as part of the ES following junction capacity and/or link capacity assessments within the Study Area, where appropriate, and following technical engagement with the highway authorities.

12.1.9 No Road Safety Audits have been undertaken at this stage of the Projects. Road Safety Audits would be undertaken as part of the ES stage and submitted to the relevant local highway authority in advance of the DCO application for approval. It is anticipated that Road Safety Audits would need to be undertaken on all permanent highway works classified as major works. No Road Safety Audits would be undertaken of temporary highway works.

12.1.10 The construction traffic flow estimates do not include Abnormal Indivisible Loads (AIL). AILs would be assessed separately in the ES when more details are known regarding the number of AIL movements, vehicle composition including AIL category, and the route options between the origin of the AILs and the English Onshore Scheme.

12.1.11 The construction phasing, construction worker profile, and associated vehicle movements have been developed with the Applicant and the Front End Engineering Design (FEED) team and are subject to change. Programme changes could include

changes to the sequencing of works to avoid sensitive locations, time of year, or other consented projects.

12.1.12 Construction traffic forecasts are based on an estimate of construction materials, workforce, and current construction phasing. This has informed the PEIR assessment and is considered to provide a realistic worst-case scenario but is subject to change as the English Onshore Scheme programme and design evolves including in response to feedback from stakeholders.

12.1.13 Discussions with Cambridgeshire County Council, Lincolnshire County Council and Norfolk County Council, and National Highways regarding the detailed scope and methodology of the traffic and transport assessment are ongoing. Engagement would continue post submission of the PEIR and prior to submission of the ES.

12.1.14 No quantitative usage data has been collected for Public Rights of Way (PRoW) that have the potential to be impacted by the English Onshore Scheme as it is anticipated that any impacts can be actively managed with minimal disruption to users of the PRoW network during the construction phase and negligible permanent changes to the PRoW network during the operational phase. Surveys would be undertaken during a time period to be agreed with the relevant highway authority, if deemed required during further engagement discussions.

12.1.15 These limitations would be reviewed based on the design presented in the Development Consent Order (DCO) application and, where required, updated, or refined, for the assessment presented in the ES.

Preliminary significance conclusions

12.1.16 For ease of reference, a summary of the significant and potentially significant effects from the preliminary traffic and transport assessment is provided in Table 12-1**Table 12-1.** All other effects in relation to traffic and transport have been assessed as not significant or will be assessed at the ES stage. Further details of the methodology behind the assessment and a detailed narrative of the assessment itself are provided within the sections below.

Table 12-1 - Preliminary summary of significance of effects

Receptor and summary of predicted effects	Sensitivity/ importance/ value of receptor[1]	Magnitude of change[2]	Significance[3]	Summary rationale
Severance effects and delays to pedestrians and other non-motorised users along the following roads: Scarborough Bank (Link 9), Lynn Road (Link 35), West Drove North, (Link 35A) and the A1104, Station Road (Link 50) from heavy vehicles only Scarborough Bank (Link 9) and West Drove North (Link 35A) from all vehicles	Link 9 - Low Link35 - Low Link35A - Medium Link 50 - High	Link 9 - Major Link35 - Moderate Link35A - Major Link 50 - Moderate	Potentially significant	Based on the magnitude of change and the assigned sensitivity of the links the significance of effect is classified as potentially significant on the identified links.
Non-motorised user amenity (relative pleasantness of a journey) Scarborough Bank (Link 9), Lynn Road (Link 35), West Drove North, (Link 35A) and the A1104, Station Road (Link 50) from heavy vehicles only Scarborough Bank (Link 9) and West Drove North (Link 35A) from all vehicles	Link 9 - Low Link35 - Low Link35A - Medium Link 50 - High	Link 9 - Major Link35 - Moderate Link35A - Major Link 50 - Moderate	Potentially significant	Based on the magnitude of change and the assigned sensitivity of the links the significance of effect is classified as potentially significant on the identified links.

1. The sensitivity/importance/value of a receptor is defined using the criteria set out in **Section 12.9** and is defined as negligible, low, medium, high.

2. The magnitude of change on a receptor resulting from activities relating to the development is defined using the criteria set out in **Section 12.9** and is defined as no change, negligible, minor, moderate, major for severance and pedestrian delay, non-motorised user amenity, and driver delay. Fear and intimidation is defined as no change negligible, low, medium, and high.
3. The significance of the environmental effects is based on the combination of the sensitivity/importance/value of a receptor and the magnitude of change and is expressed as very large (significant), moderate (potentially significant) or slight/neutral (not significant), subject to the evaluation methodology outlined in **Section 12.9**.

12.2 Relevant technical guidance

12.2.1 The legislation and planning policy which has informed the assessment of effects with respect to traffic and transport is provided within **Volume 2, Part 1, Appendix 1.2.A: Regulatory and Planning Context**. Further information on policies relevant to the English Onshore Scheme is provided in **Volume 1, Part 1, Chapter 2: Regulatory and Policy Overview.** Relevant technical guidance, specific to traffic and transport, that has informed this PEIR and would inform the assessment within the ES is summarised below.

Technical guidance

12.2.2 A summary of the technical guidance for traffic and transport is given in **Table 12-2.**

Table 12-2 - Technical guidance relevant to the traffic and transport assessment

Technical guidance document	Context
Planning Practice Guidance - Travel Plans, Transport Assessments and Statements (2014) (Ref 12.1)	This Planning Practice Guidance sets out when Travel Plan, Transport Assessments, Transport Statements are required, and what they should contain. This guidance sets out that local planning authorities, developers, relevant transport authorities and neighbourhood planning organisations should agree what evaluation is needed in each instance.
Environmental Assessment of Traffic and Movement (2023) (Ref 12.2)	The Institute of Environmental Management and Assessment (IEMA) Environmental Assessment of Traffic and Movement (EATM) guidelines provide practitioners with good practice advice on how to carry out the assessment of traffic and movement of people as part of a statutory EIA or non-statutory environmental assessment.
LA101 – Introduction to Environmental Assessment (2019) (Ref 12.3)	LA101 (Ref 12.3) sets out the over-arching requirements and principles that form an introduction to the environmental assessment of motorway and all-purpose trunk roads.
LA103 – Scoping Reports for Environmental Assessment (2020) (Ref 12.4)	LA103 (Ref 12.4) sets out the requirements for scoping motorway and all-purpose trunk road projects for environmental assessment.
LA104 – Environmental Assessment and monitoring (2020) (Ref 12.5)	LA104 (Ref 12.5) sets out the requirements for environmental assessment of projects, including reporting and monitoring of significant adverse environmental effects.

Technical guidance document	Context
LA112 – Population and Human Health, Design Manual for Roads and Bridges (2020) (Ref 12.6)	LA112 (Ref 12.6) sets out the requirements for assessing and reporting the environmental effects on population and health from construction, operation, and maintenance of highway projects.

12.3 Consultation and engagement

Overview

12.3.1 The assessment has been informed by consultation responses and ongoing stakeholder engagement. An overview of the approach to consultation is provided in **Section 5.9** of **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**.

Scoping Opinion

12.3.2 A Scoping Opinion (Ref 12.7) was adopted by the Secretary of State, administered by the Planning Inspectorate, on 05 September 2024. **Volume 2, Part 2, Appendix 2.12.A Traffic and Transport - Scoping Opinion Response** outlines the comments made in the Scoping Opinion in relation to traffic and transport and how these have been addressed within this PEIR.

12.3.3 Since issue of the Scoping Opinion changes to the Projects design has resulted in Fenland District Council and Cambridgeshire County Council falling within the draft Order Limits. Whilst the preliminary assessment has taken account of the relevant baseline information for these local planning authorities the scope of the assessment remains unchanged.

12.3.4 In line with the approach set out in the EIA Scoping Report (Ref 12.7) and which the inspectorate noted their contentment with the approach, the operational (and maintenance) phase has been scoped out. Notwithstanding that effects from the operational phase have been scoped out of the assessment for traffic and transport, for completeness, and following a request from the Planning Inspectorate information on the operational phase has been provided in **Volume 2, Part 2, Appendix 2.12.A Traffic and Transport - Scoping Opinion Response.**

12.3.5 The information provided in the PEIR is preliminary, and not all of the Scoping Opinion (Ref 12.8) comments have been addressed at this stage, however, all comments would be addressed within the ES.

Technical engagement

12.3.6 Technical engagement with consultees in relation to traffic and transport is ongoing. A summary of the technical engagement undertaken to date is outlined in **Table 12-3**..

Table 12-3 - Technical engagement on the environmental aspect assessment

Consultee	Consideration	How addressed in this PEIR
Lincolnshire County Council	At a meeting on 23 February 2024, Lincolnshire County Council advised in response to a query related to road network constraints around Alford, that there is a seasonal issue for tourism in this area due to its close proximity to the coastal resorts. The area would become busier for traffic movements between April and September. Lincolnshire County Council also advised highways programmes would become available in the future.	The need to consider seasonal issues are acknowledged in this PEIR and would be investigated further at the ES stage. This would include considering programme, Construction Access Routes, and managing disruption to the highway network through the preparation of an Outline Construction Traffic Management Plan to be submitted at the ES stage.
Lincolnshire County Council	At a meeting on 18 June 2024, Lincolnshire County Council highlighted the requirement to understand the cumulative effect of projects including Eastern Green Link 3 and 4, Grimsby to Walpole, Outer Dowsing, Triton Knoll and others. Other issues raised included the wording of the draft Development Consent Order, availability of traffic data, availability of PRoW maps, and seasonal considerations.	The need to consider cumulative effects are acknowledged in this PEIR and would be investigated further at the ES stage. This would include a detailed assessment where traffic is forecast to utilise the same highway links and where construction programmes overlap. Baseline traffic data and PRoW maps have been referenced in the current baseline. Seasonal conditions would be considered further at the ES stage as the construction programme is developed.
Norfolk County Council	At a meeting on 24 July 2024, the English Onshore Scheme was introduced to officers at Norfolk County Council, including an overview of the scheme, progress to date, approach to traffic and transport, and the access strategy. Norfolk County Council emphasised the importance of collaborating with the police when working with AIL and noted potential	This chapter of the PEIR sets out a preliminary assessment of construction traffic impacts. The movement of AIL would be considered further at the ES stage as the AIL strategy is developed.

Consultee	Consideration	How addressed in this PEIR
	time restrictions for traffic movements on certain highways.	
Lincolnshire County Council	At a meeting on 28 August 2024, Lincolnshire County Council reiterated the requirement for the cumulative impact of traffic with other schemes such as Outer Dowsing.	This chapter of the PEIR sets out a preliminary assessment of construction traffic impacts, including traffic growth. Further assessment of cumulative effects would be undertaken at the ES stage when there is greater certainty of programme for the English Onshore Scheme and other proposed developments.
Lincolnshire County Council	At a meeting on 25 September 2024, Lincolnshire County Council advised that the acceptability of accesses was dependent on construction vehicle numbers, road usage and time of day. It was also noted that teams outside of transport and highways would provide comments.	This chapter of the PEIR sets out the proposed Construction Access Routes and forecasts number of vehicle movements in **Volume 3, Part 3, Figure 12-4 Traffic and Transport – Construction Access Routes** and **Volume 2, Part 2, Appendix 2.12.C Traffic and Transport – Preliminary Construction Phase Traffic Flows**. Construction working hours are set out in **Volume 1, Part 1, Chapter 4: Description of the Projects**.
Lincolnshire County Council	At a meeting on 23 October 2024, Lincolnshire County Council advised that cable installation along the A17 would lead to unacceptable impacts to the highway network and a formal response would be issued. Other issues discussed were the availability preliminary traffic data, use of Department for Transport or Crash Map personal injury collision data, and availability of Strategic Models.	**Volume 1, Part 1 Chapter 4: Description of the Projects** describes the English Onshore Scheme and **Volume 3, Part 1, Figure 1-3 English Onshore Scheme draft Order Limits** illustrates that the option of following the A17 is no longer being considered. **Volume 2, Part 2, Appendix 2.12.C Traffic and Transport – Preliminary Construction Phase Traffic Flows** contains the preliminary traffic flow data and Department for Transport personal injury collision data is illustrated on **Volume 3, Part 2, Figure 12-5 Traffic and**

Consultee	Consideration	How addressed in this PEIR
		Transport – Personal Injury Collisions. Traffic data and personal collision data would be updated as close to the DCO submission as possible and reported in the ES.
Lincolnshire County Council	At a meeting on 27 November 2024, Lincolnshire County Council emphasised the need for traffic data before feedback can be provided on Construction Access Routes. Other issues discussed included the impact on the PRoW Network, principles for managing impacts, and legacy benefits.	This PEIR sets outs the proposed Construction Access Routes at **Table 12-6** and these are illustrated on **Volume 3, Part 2, Figure 12-4 Traffic and Transport – Construction Access Routes**. The forecast number of vehicle movements are set out in **Volume 2, Part 2, Appendix 2.12.C: Traffic and Transport – Preliminary Construction Phase Traffic Flows**. Further technical engagement would be required following the submission of the PEIR. This chapter of the PEIR also sets out the PRoW within the draft Order Limits at **Table** 12-8 and shown on **Volume 3, Part 2, Figure 12-2 Traffic and Transport - Public Rights of Way Network**. An Outline PRoW Management Plan is currently being prepared and would be shared with the host highway authorities for review and comment following submission of the PEIR. The final version would be submitted alongside the ES.
Lincolnshire County Council	At a meeting on 18 December 2024, the general approach to managing impacts to the PRoW Network was discussed with council officers and it was agreed that a schedule and shapefiles would be shared when available. It was also highlighted that any impacts to	This chapter of the PEIR sets out the PRoW within the draft Order Limits at **Table** 12-8 and shown on **Volume 3, Part 2, Figure 12-2 Traffic and Transport - Public Rights of Way Network**. An Outline PRoW Management Plan (PRoWMP) is currently being

Consultee	Consideration	How addressed in this PEIR
	the England Coast Path would need to be discussed with Natural England.	prepared and would be shared with the host highway authorities for review and comment following submission of the PEIR. The final version would be submitted alongside the ES. Further technical engagement would be required following the submission of the PEIR and prior to the ES submission.
Cambridgeshire County Council	At a meeting on 6 February 2025 initial information on the English Onshore Scheme was presented to officers at Cambridgeshire County Council including an overview of the scheme, approach to routeing and siting, progress since non-statutory consultation, proposed onshore works, and next steps.	This chapter of the PEIR sets out a preliminary assessment of construction traffic impacts associated with the English Onshore Scheme. Technical engagement with Cambridgeshire County Council would be undertaken prior to the ES submission. In particular, this would cover where the A47 has an interface with the local highway network south of Wisbech. Discussions related to the movement of AIL are also likely to be required.
Norfolk County Council	At a meeting on 3 March 2025, the Walpole Access Strategy was discussed including accessing the area from the A47 and A17, AIL, other assets and considerations (weight restrictions and highway status), and vehicle movements (worst case scenario).	This chapter of the PEIR sets outs the proposed Construction Access Routes at **Table 12-6** and these are illustrated on **Volume 3, Part 2, Figure 12-4 Traffic and Transport – Construction Access Routes**. The forecast number of vehicle movements are set out in **Volume 2, Part 2, Appendix 2.12.C: Traffic and Transport – Preliminary Construction Phase Traffic Flows** throughout the construction programme. Further technical engagement will be required following the submission of the PEIR.
National Highways	At a meeting on 24th April, the EGL 3 and EGL 4 projects were presented to National	This chapter of the PEIR sets outs the proposed Construction Access Routes at

Consultee	Consideration	How addressed in this PEIR
	Highways alongside the Grimsby to Walpole Project outlining the relationship between the applications and methodology. The timeline for the Projects was outlined, including the imminent issue of the PEIR. It was explained that data presented in the report would represent the most up to date available estimates of predicted traffic flows, although these would require updating as the Projects' design progresses, and the ES is prepared and further discussions with National Highways would be required.	**Table 12-6** and these are illustrated on **Volume 3, Part 2, Figure 12-4 Traffic and Transport – Construction Access Routes**. The forecast number of vehicle movements are set out in **Volume 2, Part 2, Appendix 2.12.C: Traffic and Transport – Preliminary Construction Phase Traffic Flows** throughout the construction programme. Further technical engagement would be required following the submission of the PEIR.

12.3.7 Further engagement would be undertaken following the submission of this PEIR and in advance of the production of the ES. Technical engagement meetings are scheduled with Lincolnshire County Council and Norfolk County Council every six weeks with targeted sessions for specific items, for example, to discuss management of impacts to the PRoW network. It is anticipated that the regular six weekly meetings would continue up until the point of submission of the DCO application and through preparation of the ES, to inform the assessment of the English Onshore Scheme.

12.3.8 As set out in **Section 12.1,** consultation and engagement with Cambridgeshire County Council and National Highways has been limited to the submission of the EIA Scoping Report (Ref 12.8) but detailed discussions would commence post submission of the PEIR and prior to submission of the ES. It is anticipated that at least two meetings would be held with Cambridgeshire County Council and National Highways, between statutory consultation and finalising the ES in advance of the DCO submission. Additional meetings can then be arranged as required.

12.3.9 It is also proposed to set up a traffic and transport Technical Working Group (TWG) comprising of the Applicant, Lincolnshire County Council, Norfolk County Council, Cambridgeshire County Council, and National Highways. It is envisaged three workshops following submission of the PEIR would be sufficient to discuss any project wide traffic and transport matters.

12.4 Data gathering methodology

Study area

12.4.1 The traffic and transport study area is shown on **Volume 3, Part 2, Figure 12-1: Traffic and Transport - Study Area**. In line with the EIA Scoping Report (Ref 12.8) the study area for the traffic and transport has been informed by the following:

- Highway links intersected by any element of the English Onshore Scheme;

- Highway links which are likely to be subject to temporary road restrictions and temporary traffic management measures required to construct the English Onshore Scheme;
- PRoW intersected by any element of the English Onshore Scheme and those that interact with construction routes as shown on **Volume 3, Part 2, Figure 12-2 Traffic and Transport – Public Rights of Way Network**;
- National Cycle Network routes that interact with the construction access routes as shown on **Volume 3, Part 2, Figure 12-3 Traffic and Transport – National Cycle Network**; and
- Highway links providing access for construction traffic generated by the English Onshore Scheme including to temporary construction working areas and laydown areas as set out in **Volume 3, Part 2, Figure 12-4 Traffic and Transport - Construction Access Routes** and listed in **Table 12-6**.

Desk study

12.4.2 A summary of the organisations that have supplied data, together with the nature of that data is outlined in **Table 12-4.**

Table 12-4 - Data sources used to inform the traffic and transport assessment

Organisation	Data source	Data provided
Office for National Statistics	Census 2011 and 2021 (Ref 12.9)	Census Data
Ordnance Survey	Ordnance Survey Website (Ref 12.10)	1:25,000 online map 1:50,000 online map
Google	Google Maps (Ref 12.11)	Streetview Imagery Traffic Data Aerial Imagery
Sustrans	Sustrans Website (Ref 12.12)	National Cycle Network (NCN)
Lincolnshire County Council	Lincolnshire County Council Website (Ref 12.13)	Definitive Map
Lincolnshire County Council	Lincolnshire County Council Website (Ref 12.14)	Local Cycle Maps
Norfolk County Council	Norfolk County Council Website (Ref 12.15)	Definitive Map Highway Map Local Cycle Maps
Norfolk County Council	Norfolk County Council Website (Ref 12.16)	Local Cycle Maps
Cambridgeshire County Council	Cambridgeshire County Council Website (Ref 12.17)	Public Rights of Way and Access Active Travel

Organisation	Data source	Data provided
Department for Transport	Department for Transport Road Traffic Statistics Website (Ref 12.18)	Traffic Volume Data
Department for Transport	Department for Transport Road Safety Statistics Website (Ref 12.19)	Personal Injury Collision Data
Network Rail	Network Rail Website (Ref 12.20)	Rail Network Map
Network Rail	Network Rail Website (Ref 12.21)	Map of Rail Served Aggregate Handling Sites
East Midlands Railway	East Midlands Railway Website (Ref 12.22)	East Midlands Railway Network Map
Inland Waterways Association	Inland Waterways Association Website (Ref 12.23)	Map of the UK Inland Waterways

Survey work

12.4.3 A drive over of sections of the English Onshore Scheme was undertaken during April 2024 to visually understand the characteristics of the highway network in areas where it was anticipated the greatest temporary change in volume and composition of traffic movements would occur. This included the highway links around Alford, Boston and Walpole.

12.4.4 ATC surveys have been undertaken to supplement publicly available baseline traffic data. 46 no. ATC surveys were commissioned at sites anticipated to be used as construction access routes. 11 no. ATC survey sites partially failed due to a combination of vandalism and equipment failure. The surveys were undertaken during October, November and early December 2024. The ATC survey sites were in place for two weeks and collected traffic volume data and speed data.

12.4.5 Further survey work, including traffic surveys, would be undertaken prior to the submission of the ES with details set out in **Section 12.11**.

12.5 Overall baseline

Current baseline

Construction Access Routes

12.5.1 An access strategy has been developed for the English Onshore Scheme which has used the types of access required and access and routeing criteria to identify the construction road traffic access routes for the English Onshore Scheme. The baseline conditions are described for these access routes. The access strategy identified different types of access associated with the construction phase:

- Primary Access (Cable Drum AIL);
- Primary Access (Construction);

- Advanced Access (Heavy Goods Vehicles (HGV[1]s));
- Advanced Access (Restricted);
- Transformer AIL Access; and
- Crossings.

12.5.2 A defined set of criteria and considerations were applied to aid selection of suitable access locations and routes as set out in **Table 12-5**.

Table 12-5 Access and Routeing Criteria

Consideration	Detail
Onwards routeing to the strategic road network (SRN) and major road network (MRN)	The route between access points and key roads are considered. Key roads include the A17, A57, A16 and A158.
Impact on residential areas	Residential areas are preferably avoided to ensure as little impact on residents surrounding the Indicative Cable Route.
Road visibility	Visibility for turning and approaching vehicles is a critical safety consideration of the design for access and egress. Consideration is given to the geometry, elevation, and presence of vegetation on existing roads as this reduces visibility.
Narrow pinch points	These include constrictions on the carriageway width such as single lane bridge crossings, and changes in horizontal geometry such as tight turns or junctions. Due to the limited manoeuvrability of some of the construction traffic, constrictions are avoided where possible to prevent vehicles from becoming stuck or dangerous interfaces with other road traffic.
Proximity to project area	Bellmouth accesses off the local highway network are preferred to be as close to the Indicative Cable Route as possible to reduce the requirement for temporary infrastructure (haul roads).
Routes for construction traffic	Where traffic volumes on the major road necessitate, right turns onto the construction haul road have been restricted, replaced with one-way systems. These systems require construction traffic to use a series of minor roads and roundabouts to left turn into the site. The result is to prevent AILs and HGV's crossing lanes of major roads which may cause traffic congestion and unsafe conditions. This is most appropriate where visibility is limited, and road speeds are high.

[1] HGV = goods vehicle greater than 3.5 tonnes

12.5.3 The defined access locations and routes have been extended throughout the study area to assess the impact on the wider highway network. **Table 12-6** contains the construction access routes and access points. The construction access routes are also shown on **Volume 3, Part 2, Figure 12-4 Traffic and Transport - Construction Access Routes**. It should be noted there is no Construction Access Route 8 and therefore is not referenced in the table. Construction access routes are formed of one or more highway 'Links'. Typically, these 'links' comprise a section of route between key junctions.

Table 12-6: Construction Access Routes (by Access Point)

SRN/MRN Route	Construction Access Route	Access Point
A16, A1104, A47, A17	1	ACS/BM/001, ACS/BM/002, ACS/BM/003, ACS/BM/004, ACS/BM/005, ACS/BM/006
A16, A1104, A47, A17	2	BM/036, BM/037
A47, A17, A16	3	BM/038, BM/039, BM/040, BM/043, BM/044, BM/045
A47, A17, A16	4	BM/047, BM/047.1, BM/047.3
A47, A17, A16	5	BM/048, BM/049
B1195, A47, A17, A16	6	BM/050, BM/051, BM/052
A47, A17, A16	7	BM/058, BM/061, BM/062, BM/063, BM/064, BM/065, BM/066, BM/067, BM/068, BM/060, BM/059, BM/069, BM/069.1
B1184, A47, A17, A16	9	BM/074, BM/083, BM/084, BM/085, BM/086, BM/087, BM/088
A47, A17, A16	10	BM/089, BM/090, BM/091, BM/092, BM/093
A1121, A47, A17, A16	11	BM/094, BM/095, BM/096, BM/098, BM/099, BM/100, BM/104
A54, A47, A17, A16	12	BM/105, BM/106, BM/107, BM/108, BM/109, BM/110, BM/111
B1391, A47, A16, A17	13	BM/114, BM/115
A47, A16	14	BM/121, BM/122
A16	15	BM/125, BM/126, BM/127, BM/129
A16	16	BM/130
A16	17	BM/133, BM/134, BM/136, BM/137, BM/135
B1357, A16	18	BM/143, BM/144, BM/145
A47, A17	19	BM/146, BM/147, BM/148, BM/150, BM/151, BM/152, BM/153, BM/154, BM/155, BM/156

SRN/MRN Route	Construction Access Route	Access Point
A17, A47	20	BM/158, BM/159
B1165, A16	21	BM/168, BM/169, BM/172, BM/170, BM/173
B1515, A17, A161, A151	22	BM/160, BM/161, BM/164, BM/165, BM/160.1, BM/162, BM/163
B1390, A16, A151, A17	23	BM/177, BM/178, BM/179
A1101, A16, A151, A17	24	BM/180, BM/185, BM/186, BM/187, BM/188, BM/181, BM/182, BM/183
A47, A17	25	Port of Sutton Bridge
A17	26	BM/192
A17	27	BM/192
A17	28	BM/192
A47	29	BM/194.6
A16	30	BM/072, BM/073, BM/072.1

Traffic Data

12.5.4 Traffic data has been obtained from the latest available Department for Transport permanent counts to understand the existing traffic flows on the highway network within the study area as shown on **Volume 3, Part 2, Figure 12-1: Traffic and Transport – Study Area**. The Department for Transport traffic flows are supplemented by ATC data.

12.5.5 **Volume 2, Part 2, Appendix 2.12.C Traffic and Transport – Preliminary Construction Phase Traffic Flows** contains the baseline traffic flows used in this PEIR.

Personal Injury Collison Data

12.5.6 Personal injury collision data has been obtained from Department for Transport Road Safety Data (Ref 12.19). The latest three-year personal injury collision data available (2020-2022) for the roads and junctions within the study area was utilised. Up to date local personal injury collision data would be available for the ES. This data would be requested direct from the local highway authorities in order to ensure that the ES considers the latest datasets available.

12.5.7 The location of all collisions are shown on **Volume 3, Part 2, Figure 12-5 Traffic and Transport – Personal Injury Collisions**. The breakdown of collisions per year and severity is summarised in **Table 12-7.**

Table 12-7 - Collisions by Year and Severity

Severity / Year	2020	2021	2022	Total
Fatal	15	3	10	**28**

Severity / Year	2020	2021	2022	Total
Serious	49	52	57	**158**
Slight	125	141	147	**413**
Total	**189**	**196**	**214**	**599**

12.5.8 Over the three-year period, a collision cluster has been determined by the following criteria:

- A location where there are six or more injury collisions occurring within a junction or a 100 m stretch.
- A location with three or more fatal and/or serious collisions happening either within a junction or within a 100 m stretch.

12.5.9 Typically, collision clusters occur at and on the approach to junctions. From the collision data analysis, a collision cluster has been identified on the highway links on each of the following Construction Access Routes, as shown on **Volume 3, Part 2, Figure 12-5 Traffic and Transport – Personal Injury Collisions:**

- Link 57 (A1121) and 58 (A52) – along the A52 within Boston, at the roundabout with the A16.
- Link 51 and 52 - collisions occurred on the approach to several junctions/access points on the A52 including High Street and South End and Main Ridge East.
- Links 56 and 61 - collisions recorded at and on the approach to the A17/A47 roundabout.

12.5.10 One of the fatal collisions recorded within the study area occurred within a cluster. Additional data would be obtained from the Local Highway Authorities to confirm these cluster locations and undertake further assessment at the ES stage to understand if mitigation is required.

PRoW Network

12.5.11 Approximately 67 PRoW within the draft Order Limits would potentially be temporarily affected by the English Onshore Scheme, with 304 identified within the wider traffic and transport study area as shown on **Volume 3, Part 2, Figure 12-2 Traffic and Transport – Public Rights of Way Network**.

12.5.12 **Table 12-8** contains a list of PRoW considered likely to be subject to high usage based on them forming part of a named recreational routes in the area and with reference to publicly available Strava usage heat map data. The PRoW are also shown on **Volume 3, Part 2, Figure 12-2 Traffic and Transport – Public Rights of Way Network**.

Table 12-8 - PRoW (Potentially High Usage)

PRoW Reference No.
Area 1
Bils/69/1 - Mumb/69/1 - Hutt/1/1 - Hutt/10/1 - Hutt/10/2 - Hutt/10/3 - Hutt/10/4 - Hutt/9/1
Area 2

PRoW Reference No.
Cumb/365/1 - Farl/365/1 - WiWS/365/1 - WiWS/90/1 - WiWS/91/3
Area 3
Orby/376/1 - WeLM/226/1
Area 4
HalH/209/1 - LSte/249/1 - LSte/209/1 - Cand/230/1
Area 7
Sibs/347/1 - Sibs/347/2 -
Area 8
Brot/5/3 - Fish/8/1 - Fram/3/1 - Wybe/5/1 - Wybe/6/1 - Wybe/7/1 - Alga/2/1 - Fram/6/1 - Fram/5/1
Area 10
Fosd/6/1 - Fosd/2/1 - Fosd/3/1 - Fosd/2/2 - Moul/1/1 - -
Area 12
Flee/5/1 - Gedy/11/2 - Gedy/11/1
Area 13
Gedy/12/1 - LgSu/11/1 - Tydd/6/1 - Tydd/6/2 - Tydd/7/1
Area 14
SuBr/6/3

Local and National Cycle Network

12.5.13 No local cycling routes, beyond bridleways referenced in the previous section, have been identified within the Traffic and Transport study area that would potentially be affected by the English Onshore Scheme.

12.5.14 The English Onshore Scheme does intersect NCN Route 1, a long-distance route running in sections from Dover to the north of Scotland, and Sustrans South Wolds and Skegness cycle route (‘the South Wolds Cycle Route’). In addition, NCN Route 63, a long-distance route running in sections from Burton on Trent to Wisbech, has an interface with the construction access route where NCN Route 63 crosses the A47 south of Wisbech.

12.5.15 **Volume 3, Part 2, Figure 12-3 Traffic and Transport – National Cycle Network** shows the sections of the NCN Route 1 and NCN Route 63 that could be affected by the English Onshore Scheme including associated construction access routes.

Rail Network

12.5.16 The English Onshore Scheme crosses the Grantham to Skegness rail line which is referred to as the ‘Poacher line’. Passenger services operating along the Poacher Line

are operated by East Midlands Railway and operate approximately hourly. It is not anticipated that those using rail services would be impacted; however, should this change, the baseline conditions would be investigated further as part of the ES.

Inland Waterways

12.5.17 The English Onshore Scheme crosses a number of navigable waterways, including the River Nene and the River Witham. At this stage in the Projects a temporary quay is proposed on the River Nene (as described in **Section 4.5, Volume 1, Part 1, Chapter 4: Description of the Projects**). Further assessment of the potential for the temporary quay to impact users of the River Nene during construction would be undertaken and reported in the ES, should this remain part of the Projects design.

Future baseline

Traffic Data

12.5.18 In line with the methodology set out in the EIA Scoping Report (Ref 12.8), traffic growth factors have been calculated and applied to the baseline traffic data in order to generate a future baseline for the peak year of construction. **Volume 2, Part 2, Appendix 2.12.C Traffic and Transport – Preliminary Construction Phase Traffic Flows** includes the future baseline traffic flows and growth factor.

12.5.19 At the ES stage, further analysis of traffic growth associated with other committed developments that use highway links within the study area would be undertaken. Sensitivity testing may be undertaken where appropriate. This would be determined through technical engagement with the relevant local highway authorities and National Highways.

12.5.20 In addition, this technical engagement would include discussions about planned highway improvements that could change traffic flows within the traffic and transport study area or use of the Public Right of Way or cycle networks.

12.6 Environmental measures

12.6.1 As set out in **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**, the environmental measures are characterised as design measures or control and management measures. A range of environmental measures would be implemented as part of the English Onshore Scheme and would be secured in the DCO as relevant.

12.6.2 **Table 12-9** outlines how these design and control measures would influence the traffic and transport assessment. In addition to the measures listed in **Table 12-9**, mitigation measures comprising management activities and techniques, would be implemented during the construction of the Projects to limit effects through adherence to good site practices and achieving legal compliance. These are listed in **Volume 2, Part 1, Appendix 1.5.B: Outline Code of Construction Practice** and are not repeated below. Measures listed in **Table 12-9** have been assigned references, for example (TT01). These align with the references provided in **Volume 2, Part 1, Appendix 1.5.B: Outline Code of Construction Practice** for ease of cross-reference. Any references identified with the ID MT (for example, MT01) include measures which may also be listed in other aspects considered as part of this PEIR therefore, have been identified as measures which apply to multiple aspects.

12.6.3 In addition, design measures identified through the EIA process have been applied to avoid or reduce potential significant effects. Design measures included that are relevant to traffic and transport receptors are included in **Table 12-9** below under Design and Operation and are also included in **Volume 2, Part 1, Appendix 1.5.A: Outline Register of Design Measures**. Compliance with these measures would be secured by the way of the DCO.

12.6.4 No environmental measures have been provided for the Operational Phase as this has been scoped out (as outlined in **Section 12.3**).

Table 12-9 - Summary of the environmental measures

Receptor	Potential changes and effects	Embedded measures	Reference ID
Construction			
Motorised users of the highway network	Potential temporary changes in traffic flows within the study area during the Construction Phase and associated traffic and transport effects.	All traffic to be managed in accordance with an Outline Construction Traffic Management Plan (Outline CTMP). The Outline CTMP would set out construction traffic management measures to, from and around the site, and prevent nuisance to the residents, businesses and the wider community caused by parking, vehicle movements and access restrictions. It would also provide suitable control for the means of access and egress to the public highway and set out measures for the maintenance and upkeep of the public highway. The plan would also identify access for emergency vehicles. It would also set out measures to reduce safety risks through construction vehicle and driver quality standards and measures to manage AIL.	TT01
Motorised users of the highway network	Potential temporary changes in traffic flows within the study area during the Construction Phase and associated traffic and transport effects.	The Contractor would implement a monitoring and reporting system to check compliance with the measures set out within the Outline CTMP. The Contractor would also be expected to monitor the use of authorised routes and number of construction vehicles accessing the site at each access point. Deviations from the authorised routes or changes to traffic levels that are greater than	TT02

Receptor	Potential changes and effects	Embedded measures	Reference ID
		the Outline CTMP assumptions would require discussion of the need for additional mitigation measures with highways authorities.	
Motorised users of the highway network	Potential temporary changes in traffic flows within the study area during the Construction Phase and associated traffic and transport effects.	Where mitigation for traffic congestion is necessary (based on modelling outcomes), deliveries of construction materials would be timed to fall outside of the traditional peak traffic period. A booking system would be used to manage the spread of deliveries across the whole day to further reduce the impact of HGV traffic during the peak periods.	TT03
Motorised users of the highway network	Potential temporary changes in traffic flows within the study area during the Construction Phase and associated traffic and transport effects.	The Contractor would undertake pre and post condition visual survey (photographic and descriptive) on the areas that may be affected by the construction activities, prior to works commencing. This record would be available for comparison following completion of the works to ensure that the condition of the highways affected at least meets that recorded in the pre-condition survey.	TT04
PRoW users	Potential temporary closure of PRoW for cable crossing of PRoW within the draft Order Limits.	All PRoW which have the potential to be impacted by the Projects would be identified in an Outline PRoWMP. The Outline PRoWMP would set out the measures required (including any potential temporary closures applied for/detailed in the DCO) to ensure that PRoW remain safe to use and that any potential disruption to PRoW is minimised. All designated PRoW crossing the working area would be managed in discussion with the relevant local authority, with access only closed for short periods while construction activities occur. Any required temporary diversions or	MT11

Receptor	Potential changes and effects	Embedded measures	Reference ID
		closures of PRoW, footways or carriageways undertaken during construction would be clearly marked at both ends with signage explaining the diversion, the duration of the diversion and a contact number for any concerns. The signage will display the temporary diversion routes in place.	
Design			
Motorised users of the highway network Non-motorised users of the highway network	Potential changes to the layout of the highway network and associated road safety effects.	All changes to the highway are to be designed in accordance with appropriate design guidance ensuring they are to standard.	TT01
Public transport (rail) users	Potential temporary disruption to the rail network where the cable route crosses.	Where appropriate, trenchless crossing methods would be used at sensitive locations such as rail crossings, to avoid or reduce impacts during construction.	TT02

12.7 Scope of the assessment

Spatial scope and study area

12.7.1 The spatial scope of the assessment of traffic and transport covers the area of the English Onshore Scheme contained within the draft Order Limits, together with the study area described as follows. The Study Area for traffic and transport is shown on **Volume 3, Part 2, Figure 12-1: Traffic and Transport - Study Area**.

12.7.2 Following the determination of a study area, the IEMA EATM (Ref 12.2) recommends the competent traffic and movement expert applies two broad rules of thumb as criteria to assist in delimiting the scale and extent of the environmental assessment.

12.7.3 The highway links for further assessment have been identified with reference to ‘Rule 1’ and ‘Rule 2’ of the IEMA EATM (Ref 12.2) guidelines which are used to determine the effect of increased traffic volumes on links within the study area, as described below:

- Rule 1 – Include highway links where traffic flows (or HGV flows) are predicted to increase by more than 30%; and
- Rule 2 – Include any other specifically sensitive areas where traffic flows (or HGV flows) are predicted to increase by 10% or more.

12.7.4 **Volume 2, Part 2, Appendix 2.12.C Traffic and Transport – Preliminary Construction Phase Traffic Flows** sets out the highway links subject to Rule 1 and

Rule 2 and those to be carried forward for assessment. Sixteen highway links have been identified as requiring further assessment as part of this preliminary report.

Temporal scope

12.7.5 The temporal scope of the assessment of traffic and transport is consistent with the period over which the English Onshore Scheme would be carried out. It covers the period associated with the construction phase of the English Onshore Scheme, commencing in 2028, through the peak of construction during 2031, and extending to 2033 when commissioning and testing of the Projects would be completed.

12.7.6 The English Onshore Scheme is expected to have a life span of more than 40 years. If decommissioning is required at this point in time, then activities and effects associated with the decommissioning phase are expected to be of a similar level to those during the construction phase works, albeit with a lesser duration of two years. Acknowledging the complexities of completing a detailed assessment for decommissioning works up to 40 years in the future, it is considered that the significance of effects relating to the decommissioning phase would be no greater than those from the construction phase and decommissioning effects are not discussed in detail in this chapter; however, **Table 4.21** in **Volume 1, Part 1, Chapter 4: Description of the Projects** provides a high-level summary assessment of the potential significant effects associated with decommissioning. Furthermore, should decommissioning take place, it is expected that an assessment in accordance with the legislation and guidance at the time of decommissioning would be undertaken.

Identification of receptors

12.7.7 The principal traffic and transport receptors that have been identified as being subject to potential significant effects are summarised in **Table 12-10** and are shown in **Volume 3, Part 2, Figure 12-1: Transport and Transport - Study Area**.

Table 12-10 - Traffic and transport receptors subject to potential effects

Receptor	Reason for consideration
Motorised users of the highway network	Temporary changes in traffic volumes and highway layouts due to construction activities.
Non-motorised users (pedestrians / cyclists / horse riders) of the highway network	Temporary changes in accessibility and amenity during construction activities.
PRoW users	Temporary changes to PRoW access due to construction activities.
Public transport (bus) users	Temporary changes to bus services due to construction activities.
Public transport (rail) users	Temporary disruption to rail services due to construction activities.

12.7.8 In addition, sensitive locations have been identified and are defined by the presence of special interests that the IEMA EATM (Ref 12.2) guidance advises should be considered:

- People at home;
- People at work;
- Sensitive and/or vulnerable groups;
- Locations with a concentration of vulnerable users (e.g. hospitals, places of worship, schools;
- Retail areas;
- Recreational areas;
- Tourist attractions;
- Collision clusters and routes with road safety concerns; and
- Junctions and highway links at (or over) capacity.

12.7.9 The sensitive locations are shown on **Volume 3, Part 2, Figure 12-6: Traffic and Transport – Sensitive Receptors**.

Potential effects considered within this assessment

12.7.10 The effects on traffic and transport receptors which have the potential to be significant and have been taken forward for detailed assessment are summarised in **Table 12-11**.

Table 12-11 - Traffic and transport receptors scoped in for further assessment

Receptor	Likely significant effects
Motorised users of the highway network	Delays to motorists including freight traffic during construction.
Non-motorised users (pedestrians / cyclists / horse riders) of the highway network	Severance of non-motorised routes, pedestrian delay, and reduction in non-motorised user amenity during construction.
PRoW users	Severance of PRoW routes due to diversions or closure during construction, and reduction in PRoW amenity during construction.
Public transport (bus) users	Delays to bus services, or loss of bus services, due to bus service changes during construction.
Public transport (rail) users	Delays to rail services, or loss of rail services, due to bus service changes during construction.

12.7.11 The receptors/effects detailed in **Table 12-12** have been scoped out from being subject to further assessment because the potential effects are not considered likely to be significant.

Table 12-12 - Summary of effects scoped out of the traffic and transport assessment

Receptors/potential effects	Justification
Potential effects associated with the operational phase.	As set out in **Volume 2, Part 2, Appendix 2.12.A Traffic and Transport – Scoping Opinion Response** operational phase activities would be limited to routine maintenance activities by a small team, with negligible increases in traffic volumes.
Potential effects associated with the movement of hazardous loads	As set out in **Volume 2, Part 2, Appendix 2.12.A Traffic and Transport – Scoping Opinion Response,** no hazardous loads are anticipated during construction or operation and are therefore scoped out of this assessment.

12.8 Key parameters for assessment

Realistic worst-case design scenario

12.8.1 The assessment has followed the Rochdale Envelope approach as outlined in **Volume 1, Part 1, Chapter 4: Description of the Projects** and **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology.** The assessment of effects has been based on the description of the Projects and parameters outlined in **Volume 1, Part 1, Chapter 4: Description of the Projects**. However, where there is uncertainty regarding a particular design parameter, the realistic worst-case design parameters are provided below with regards to traffic and transport along with the reasons why these parameters are considered worst-case. The preliminary assessment for traffic and transport has been undertaken on this basis. Effects of greater adverse significance are not likely to arise should any other development scenario, based on details within the Rochdale Envelope (e.g., different infrastructure layout within the draft Order Limits), to that assessed here, be taken forward in the final design scheme.

12.8.2 In relation to traffic and transport, the following assumptions are made regarding the Projects' design parameters in order to ensure a realistic worst-case assessment has been undertaken.

12.8.3 The assessment presented in the PEIR includes the latest design information available at the time of the submission. Where design information is not available, reasonable worst case assumptions have been applied, for example, the volumes of aggregate.

12.8.4 As set out in **Volume 1, Part 1, Chapter 4: Description of the Projects**, and specifically in **Section 4.4**, at this stage in the design process, four options have been identified with regards to the proposed siting of the Walpole converter stations. All four options (Options A-D) have been included within the baseline mapping and taken account of in identifying construction access routes. At this preliminary stage in the design development it is considered that there are no clear differences in effects between the four options for the Walpole converter stations with regards to traffic and transport receptors, and as such, the preliminary traffic modelling and assessment of effects (**Section 12.10**) have not modelled or made reference to the specific options. Therefore, with regards to Construction Access Routes to the Converter Stations it is assumed that vehicular access from the major road network would be from either the

A47 to the south or A17 to the north. The total estimated construction traffic flows associated with the construction of the converter stations have been assigned to both routes (i.e. 100% of converter station construction phase traffic flows travelling to the A47 and 50% of converter station construction phase flows travelling to the A17) to assess the reasonable worst-case scenario across the wider highway network. This is considered to be the worst case as in practice construction of the Converter Stations would not generate this level of vehicle movements.

12.8.5 At this stage an option for a temporary quay on the River Nene is included as part of the Projects design (as described in **Section 4.5, Volume 1, Part 1, Chapter 4: Description of the Projects**). The purpose of the temporary quay would be to move construction materials and converter station equipment via the River Nene rather than via the highway network potentially reducing the number of construction vehicles from the Projects on the highway network. This option has not been included in the traffic modelling in order to assess a realistic worst-case design scenario whereby all transport during construction would be via the highway network.

Consideration of construction scenarios

12.8.6 As detailed in **Volume 1, Part 1, Chapter 4: Description of the Projects**, the timing of construction activities set out within this PEIR is indicative. It has been identified that elements of the Projects could be constructed sequentially or concurrently. For the purposes of the assessment, it has been assumed that all elements of the English Onshore Scheme would be constructed concurrently as this would represent the realistic worst case scenario for transport and movement. Making this assumption results in the forecast vehicle movements peaking at a greater level than if elements of the English Onshore Scheme were to be constructed where traffic movements would be distributed over a longer period.

12.9 Assessment methodology

Overview

12.9.1 The generic project-wide approach to the assessment methodology is set out in **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**, and specifically in **Sections 5.4** to **5.6**. However, whilst this has informed the approach that has been used in this traffic and transport assessment, it is necessary to set out how this methodology has been applied, and adapted as appropriate, to address the specific needs of this traffic and transport assessment. Details are provided below.

Receptor sensitivity/value

12.9.2 The receptors within the study area have been considered in relation to the baseline conditions at the nearest highway link. The relationship of those receptors with the highway environment has been examined to understand the sensitivity of those receptors to change in relation to all of the traffic and transport impacts being assessed.

12.9.3 The sensitivity of each highway link in the assessment has been assigned a sensitivity in accordance with the advice set out in the IEMA EATM (Ref 12.2) guidelines, as summarised in **Table 12-13**, and based on professional judgement.

Table 12-13 - Highway Link Sensitivity

Sensitivity	Reason for receptor sensitivity	Receptor type
High	High concentration of people at home, people at work, sensitive and/or vulnerable groups (including young age; older age; income; health status; social disadvantage; and access and geographic factors), locations with concentrations of vulnerable users (e.g. hospitals, places of worship, schools), retail areas, recreational areas, tourist attractions. Limited separation of footway/ cycleways from traffic. Significant level of pedestrian / cycle desire lines. A volume / highway capacity (i.e. V/C ratio) greater than 100%. A link with three or more fatal and/or serious collisions happening either within a junction or within a 100 m stretch.	Motorised users of the highway network. Non-motorised users (pedestrians / cyclists / horse riders) of the highway network and PRoW users. Public transport (bus) users.
Medium	Medium concentration of people at home, people at work, sensitive and/or vulnerable groups (including young age; older age; income; health status; social disadvantage; and access and geographic factors), locations with concentrations of vulnerable users (e.g. hospitals, places of worship, schools), retail areas, recreational areas, tourist attractions. Limited separation of footway/ cycleways from traffic.	Motorised users of the highway network. Non-motorised users (pedestrians / cyclists / horse riders) of the highway network and PRoW users. Public transport (bus) users.

Sensitivity	Reason for receptor sensitivity	Receptor type
	Moderate level of pedestrian / cycle desire lines A V/C ratio between 90% and 100%. A link where there are six or more injury collisions occurring within a junction or a 100 m stretch.	
Low	Low concentration of people at home, people at work, sensitive and/or vulnerable groups (including young age; older age; income; health status; social disadvantage; and access and geographic factors), locations with concentrations of vulnerable users (e.g. hospitals, places of worship, schools), retail areas, recreational areas, tourist attractions. Provision of footway/ cycleways that meet highway design standards. Footway/ cycleways adequately separated from traffic. Limited pedestrian / cycle desire lines. A V/C ratio between 85% and 90%. A link where no clusters have been identified but there are isolated incidents.	Motorised users of the highway network. Non-motorised users (pedestrians / cyclists / horse riders) of the highway network and PRoW users. Public transport (bus) users.
Negligible	Very low concentration of people at home, people at work, sensitive and/or vulnerable groups (including young age; older age; income; health status; social disadvantage; and access and geographic factors), locations with concentrations of	Motorised users of the highway network. Non-motorised users (pedestrians / cyclists / horse riders) of the highway network and PRoW users.

Sensitivity	Reason for receptor sensitivity	Receptor type
	vulnerable users (e.g. hospitals, places of worship, schools), retail areas, recreational areas, tourist attractions. Provision of footway/ cycleways that meet highway design standards. Footway/ cycleways well separated from the carriageway. Minimum level of pedestrian / cycle desire lines. A V/C ratio less than 85%. A link where there have been no recorded personal injury collisions.	Public transport (bus) users.

12.9.4 The sensitivity of a highway link is therefore assessed with reference to the type of user groups who may use it and the special interests present in an area.

Magnitude of impact

12.9.5 The traffic generated by the English Onshore Scheme has been used to assess the impacts on the highway links and junctions on the surrounding road network. The likely effects of the English Onshore Scheme in environmental terms would be evaluated in accordance with IEMA EATM (Ref 12.2) guidelines as outlined in the following sub-sections.

12.9.6 The guidelines acknowledge that for many effects, there are no simple rules or formulae which define thresholds of significance and there is, therefore, a need for interpretation and the application of professional judgement on the part of the assessor, backed up by data or quantified information. Such judgment would include the assessment of the number of user groups impacted and the sensitivity of those user groups, as well as the assessment of damage to various natural or cultural resources.

12.9.7 An assessment has been undertaken to identify the percentage increase in HGVs and total traffic as a result of construction related traffic on the road network using future baseline traffic flow data. The predicted increase has been assessed on Annual Average Daily Traffic (AADT) flows.

Severance and Pedestrian Delay (incorporating delay to all non-motorised users)

12.9.8 Severance occurs in a community when a major artery separates people from places and other people. Severance occurs from difficulty of crossing a road or where the road itself creates a physical barrier. Severance can be caused to pedestrians or motorists. IEMA EATM (Ref 12.2) guidelines state that historical guidance published by the

Department for Transport suggested changes in total traffic flow of 30%, 60% and 90% result in slight, moderate, and substantial changes in severance respectively.

12.9.9 IEMA EATM (Ref 12.2) notes that this guidance no longer appears in Department for Transport guidance but has not been superseded by subsequent changes and is established through planning case law. On this basis, it is considered appropriate to continue using these indicators to assess severance. **Table 12-14** contains how the magnitude of impacts on sensitive receptors shall be reported within this preliminary assessment with respect to severance.

Table 12-14: Magnitude of Impact (Severance and Pedestrian Delay)

	Magnitude of Impact (degree of change)				
	No Change	**Negligible**	**Minor**	**Moderate**	**Major**
Severance / Pedestrian Delay	No change in traffic flow	Change in total traffic flow of less than 30%	Change in total traffic flow of 30% - 60%	Change in total traffic flow of greater than 60% - 90%	Change in total traffic flow of greater than 90%

Driver Delay

12.9.10 The use of industry standard junction capacity modelling programmes provides a methodology to quantify junction delay. Driver delay is only likely to be significant where the existing study area highway network is at or close to capacity.

12.9.11 The magnitude of impact is derived using professional judgment informed by the increase in vehicle delay, and whether a junction is at, or close to capacity. Alternatively, the forecast change in traffic flows can be used to assess the magnitude of impact. Impacts to local network performance would be assessed, and the impacts to driver delay would be presented in the ES. In accordance with IEMA EATM (Ref 12.2), this approach is considered to be appropriate to assess driver delay.

Non-motorised User Amenity

12.9.12 Non-motorised User amenity is broadly defined as the relative pleasantness of a journey, and is considered to be affected by traffic flow, traffic composition, pavement width and separation between vehicles and pedestrians. The impact manifests itself in fear and intimidation, exposure to noise and vehicle emissions. IEMA EATM (Ref 12.2) states that historical guidance published by the Department for Transport suggested that a doubling or halving of total traffic flow or the HGV composition could lead to perceptible adverse or beneficial impacts upon Non-motorised User amenity. IEMA EATM (Ref 12.2) guidelines note that this guidance no longer appears in Department for Transport guidance but has not been superseded by subsequent changes and is established through planning case law. On this basis, it is considered appropriate to continue using these indicators to assess Non-motorised User amenity. **Table 12-15** sets out how the magnitude of impacts on receptors shall be reported within this preliminary assessment with respect to Non-motorised User amenity.

Table 12-15 - Magnitude of Impact (Non-motorised User Amenity)

	Magnitude of Impact (degree of change)				
	No Change	**Negligible**	**Minor**	**Moderate**	**Major**
Non-motorised User Amenity	No change in traffic flow	Change in total traffic flow (or HGV component) of less than 30%	Change in total traffic flow of (or HGV component) 30% - 50%	Change in total traffic flow (or HGV component) of 50% - 100%	Change in total traffic flow (or HGV component) of greater than 100%

Fear and Intimidation

12.9.13 The IEMA EATM (Ref 12.2) guidelines state that the extent of fear and intimidation is dependent on the total volume of traffic, the heavy vehicle composition, the speed that these vehicles are passing and the proximity of traffic to people. IEMA EATM (Ref 12.2) guidelines provide a weighted system to provide an approximation of the likelihood of pedestrian fear and intimidation. The degree of hazard is assessed with reference to the established thresholds (a, b and c) (see **Table 12-16**) and a score is provided for each combination on a highway link under consideration (see **Table 12-17**). The magnitude of impact is approximated with reference to changes in the level of fear and intimidation from baseline conditions (see **Table 12-18**).

Table 12-16 - Fear and Intimidation Degree of Hazard

Average traffic flow over 18 hour day – all vehicles/hour 2-way (a)	Total 18-hour heavy vehicle flow (b)	Average vehicle speeds (mph) (c)	Degree of hazard score
+1,800	+3,000	>40	30
1,200 – 1,800	2,000 – 3,000	30 – 40	20
600 – 1,200	1,000 – 2,000	20 – 30	10
<600	<1,000	<20	0

Table 12-17 - Levels of Fear and Intimidation

Level of fear and intimidation	Total hazard score (a) + (b) + (c)
Extreme	71+
Great	41 – 70
Moderate	21 – 40
Small	0 - 20

Table 12-18 - Magnitude of Impact (Fear and Intimidation)

Magnitude of Impact	Change in step/traffic flows (AADT) from baseline conditions
High	Two step changes in level
Medium	One step change in level, but with >400 vehicle increase in average 18hr All Vehicle (AV) two-way all vehicles flow; and/or >500 Heavy Vehicle (HV[2]) increase in total 19hr HV flow.
Low	One step change in level with <400 vehicle increase in average 18hr AV two-way all vehicle flow; and/or <500 HV increase in total 18hr HV flow
Negligible	No change in step changes
No Change	No observable impact

Road Safety

12.9.14 Road safety is assessed by the frequency and severity of injury accidents that are attended by the police and recorded in official accident statistics. Intensification of use or changes in the composition of traffic has the potential to have an effect on collision rates. The examination of recent collision statistics on routes within the study area would highlight any hotspots that need further examination.

12.9.15 The Personal Injury Collision records for the local highway network has been examined for the three-year period 2020-2022. In accordance with IEMA EATM (Ref 12.2) guidelines, this approach is considered to be appropriate to assess road safety.

12.9.16 Magnitude of impact derived using professional judgment informed by the frequency and severity of recorded collisions within the study area and the forecast increase in traffic.

Road Safety Audits

12.9.17 The IEMA EATM (Ref 12.2) guidelines state that the standard and prescribed Road Safety Audits (GG 119 – Road Safety Audit DMRB) (Ref 12.24) should be used to review the road safety attributes of any proposed engineering changes in the adopted highway prior to submission. However, local highway authorities often have their own standards and audit processes therefore the approach would be agreed with each of the local highway authorities where changes to the highway are proposed.

Significance of effect

12.9.18 **Table 12-19** and **Table 12-20** combine receptor sensitivity with the magnitude of impact (degree of change), classifying the effects as neutral, slight, moderate, or very large (adverse or beneficial). The significance matrices are based on **Table 3.8.1** from LA104 (Ref 12.5) and adjusted where required to align with IEMA EATM (Ref 12.2) guidelines.

[2] HV - Heavy Vehicle (HV) = goods vehicles + buses >3.5t gross vehicle weight

Table 12-19 - Significance Evaluation Matrix (Severance, Pedestrian Delay, Non-Motorised User Amenity, Driver Delay)

		Magnitude of Change				
		Major	**Moderate**	**Minor**	**Negligible**	**No Change**
Receptor Sensitivity	Very High	Very Large (significant)	Large (significant)	Moderate (significant)	Slight (not significant)	Neutral (not significant)
	High	Large (significant)	Moderate (significant)	Moderate (significant)	Slight (not significant)	Neutral (not significant)
	Medium	Moderate (significant)	Moderate (significant)	Slight (not significant)	Neutral (not significant)	Neutral (not significant)
	Low	Moderate (significant)	Slight (not significant)	Neutral (not significant)	Neutral (not significant)	Neutral (not significant)
	Negligible	Slight (not significant)	Neutral (not significant)	Neutral (not significant)	Neutral (not significant)	Neutral (not significant)

Table 12-20: Significance Evaluation Matrix (Fear and Intimidation)

		Magnitude of Change				
		High	**Medium**	**Low**	**Negligible**	**No Change**
Receptor Sensitivity	Very High	Very Large (significant)	Large (significant)	Moderate (significant)	Slight (not significant)	Neutral (not significant)
	High	Large (significant)	Moderate (significant)	Moderate (significant)	Slight (not significant)	Neutral (not significant)
	Medium	Moderate (significant)	Moderate (significant)	Slight (not significant)	Neutral (not significant)	Neutral (not significant)
	Low	Moderate (significant)	Slight (not significant)	Neutral (not significant)	Neutral (not significant)	Neutral (not significant)
	Negligible	Slight (not significant)	Neutral (not significant)	Neutral (not significant)	Neutral (not significant)	Neutral (not significant)

12.9.19 The assessment of the significance of environmental effects shall also cover the following factors:

- The duration (long or short-term); permanence (permanent or temporary), and changes in significance (increase or decrease);
- Reversibility– for example, is the change reversible or irreversible, permanent or temporary; and
- Feasibility and mechanisms for delivering mitigating measures, for example, is there evidence of the ability to legally deliver the environmental assumptions which are the basis for the assessment.

12.9.20 ‘Significant effects’ comprise residual effects that are within the moderate, large, or very large categories for the purposes of this EIA; neutral or slight effects are ‘not significant’.

Preliminary assessment of cumulative effects

12.9.21 At the current stage of the Projects (PEIR stage), design information for the Projects is insufficient to allow for a robust cumulative assessment to be undertaken. Furthermore, given the current position in relation to baseline data collection, with much of the environmental surveys still to be undertaken during 2025, the baseline identified at this PEIR stage cannot be taken as a complete picture of the potential presence and significance of sensitive receptors. Therefore, a cumulative assessment has not been undertaken at this stage; however, **Volume 1, Part 4, Chapter 28: Cumulative Effects**, presents the long and short lists of ‘other developments’ which would be considered at the ES stage. The long-list would be reviewed and, if necessary, updated, in the lead up to the ES, as the Projects design further evolves and in response to any comments raised at statutory consultation.

12.9.22 Combined effects (sometimes called intra-project effects) result principally from different types of impacts from one development acting in combination on a specific receptor. The increase in vehicle movements during the construction phase and the combined effects from other types of effect on receptors would be considered as part of the ongoing assessment in the following chapters:

- **Volume 1, Part 2, Chapter 6 Biodiversity;**
- **Volume 1, Part 2, Chapter 7 Cultural Heritage;**
- **Volume 1, Part 2, Chapter 8 Landscape and Visual Amenity;**
- **Volume 1, Part 2, Chapter 13 Noise and Vibration;**
- **Volume 1, Part 2, Chapter 14 Air Quality;**
- **Volume 1, Part 2, Chapter 15 Socio-economics, Recreation and Tourism;** and
- **Volume 1, Part 2, Chapter 16 Health and Wellbeing**

12.9.23 Further details on the combined effects can be found in the individual chapters.

12.10 Preliminary assessment of traffic and transport effects

12.10.1 This section details the preliminary assessment of significant effects of the English Onshore Scheme during the construction phase, considering the environmental measures detailed in **Section 12.6** of this chapter.

12.10.2 To assess the potential likely significant effects on receptors, the current estimated construction related traffic has been assigned to the network in accordance with the assessment methodology previously outlined in **Section 12.9** of this chapter, with the preliminary analysis underpinning the trip generation, distribution and assignment during the construction phase included in **Volume 2, Part 2, Appendix 2.12.C Traffic and Transport – Preliminary Construction Phase Traffic Flows**.

12.10.3 The assessment is a preliminary assessment based on the current design, available data, current assumptions, and limitations. A full detailed assessment would be presented within the ES, to be submitted with the DCO application.

Assessment of construction phase effects

12.10.4 The traffic and transport effects associated with the English Onshore Scheme would be as a direct result of an increase in traffic flows on the surrounding roads used during the construction phase. An assessment has been undertaken to identify the percentage increase in total traffic and HV during the construction phase on the local and strategic road network in comparison to the future baseline traffic flow data allowing for traffic growth. The predicted increase has been assessed using AADT flows.

12.10.5 Traffic and transport effects associated with the construction phase on receptors relates to the change in traffic flow compared with baseline flows, vehicle composition and with the highway link sensitivity. The level of sensitivity of the link specific receptors has been identified in **Volume 2, Part 2, Appendix 2.12.B Traffic and Transport – Baseline Conditions** and presented on **Volume 3, Part 2, Figure 12.6: Traffic and Transport - Sensitive Receptors**.

12.10.6 **Volume 2, Part 2, Appendix 2.12.C Traffic and Transport – Preliminary Construction Phase Traffic Flows** sets out the predicted increase in traffic on the local and strategic road network associated with predicted worst-case AADT construction traffic movements during the concurrent construction programme.

12.10.7 The predicted increase for AADT total vehicle flows and/or HV exceeds the 10% threshold (for sensitive roads) and 30% threshold (for non-sensitive roads) on twelve highway links forming part of the Construction Access Routes and connecting roads and would be subject to further assessment within the ES. These links are listed in **Table 12-21** and shown in **Volume 3, Part 2, Figure 12.4: Traffic and Transport – Construction Access Routes**.

Table 12-21 - Highway links exceeding IEMA thresholds

Highway Link	Road Name	Threshold
9	Scarborough Bank	30% threshold (non-sensitive roads)
20	Punchbowl Lane	30% threshold (non-sensitive roads)
23	B1165 Austendyke Road	30% threshold (non-sensitive roads)
30	Bullock's Short Gate	30% threshold (non-sensitive roads)
35	Lynn Road	30% threshold (non-sensitive roads)
35A	West Drove North	30% threshold (non-sensitive roads)
48	A16	30% threshold (non-sensitive roads)
50	A1104	10% threshold (sensitive roads)
51	A16	10% threshold (sensitive roads)

Highway Link	Road Name	Threshold
54	A16	30% threshold (non-sensitive roads)
57	A1121	30% threshold (non-sensitive roads)
58	A52	30% threshold (non-sensitive roads)

12.10.8 **Volume 2, Part 2, Appendix 2.12.C Traffic and Transport – Preliminary Construction Phase Traffic Flows** indicates four highway links where the impacts are currently unknown owing to the requirement for additional traffic data. These links would need to be assessed fully at the ES stage and in some instances would be limited to the movement of AIL only.

12.10.9 **Volume 2, Part 2, Appendix 2.12.C Traffic and Transport – Preliminary Construction Phase Traffic Flows** indicates 46 highway links that form part of the construction access route and connecting roads are below the assessment threshold and would not be subject to further assessment based on current design, assumptions, and limitations. In nine instances baseline data is not available but the highway links are not forecast to carry daily construction phase traffic and therefore have not been carried forward for assessment.

12.10.10 The following sub-sections provide a preliminary assessment of the effects in relation to severance and pedestrian delay (incorporating delay to all non-motorised users), non-motorised user amenity, and fear and intimidation with reference to the change in traffic flows. As referenced earlier in this chapter driver delay has not been assessed at this stage and road safety audits have yet to be undertaken.

Severance and Pedestrian Delay (incorporating delay to all non-motorised users)

12.10.11 Severance is the perceived division that can occur within a community when it becomes separated from places and other people. The severance may be caused by a physical barrier created by a development or by the difficulty of crossing roads due to an increase in traffic flow.

12.10.12 The results set out in **Volume 2, Part 2, Appendix 2.12.D Traffic and Transport – Preliminary Construction Phase Effects** indicate that in relation to the links carried forward, the magnitude of change and assigned sensitivity of the link, the significance of effect in relation to severance and pedestrian delay (incorporating delay to all non-motorised users) is classified as potentially significant on four links (Link 9, Link 35, Link 35A, and Link 50) in relation to heavy vehicles. For the remaining eight links effects in relation to the increase in heavy vehicles on the affected road network (ARN) would not be significant.

12.10.13 Based on the magnitude of change and the assigned sensitivity of the link the significance of effect in relation to severance and pedestrian delay (incorporating delay to all non-motorised users) is classified as potentially significant on two links (Link 9, Link 35A), and as not significant on ten links in relation to the increase in total vehicles on ARN.

12.10.14 In summary, the preliminary assessment indicates that there are potentially significant effects in relation to severance and pedestrian delay (incorporating delay to all non-motorised users) on four links (Link 9, Link 35, Link 35A, and Link 50). The potentially

affected links form part of construction access route (Scarborough Bank, Lynn Road, West Drove North and the A1104).

Non-motorised user amenity

12.10.15 Non-motorised user amenity is broadly defined as the relative pleasantness of a journey, and is considered to be affected by traffic flow, traffic composition, pavement width and separation between vehicles and non-motorised users. The IEMA EATM (Ref 12.2) guidelines with reference to Department for Transport research suggest that a doubling or halving of total traffic flow or the HGV composition could lead to perceptible change upon non-motorised user amenity.

12.10.16 The preliminary assessment set out in **Volume 2, Part 2, Appendix 2.12.D Traffic and Transport – Preliminary Construction Phase Effects** indicate that in relation to the links carried forward for preliminary assessment, the magnitude of change and assigned sensitivity of the link the significance of effect in relation to non-motorised user amenity is classified as potentially significant on four links (Link 9, Link 35, Link 35A, and Link 50) and as not significant on eight links in relation to the increase in heavy vehicles on the ARN.

12.10.17 Based on the magnitude of change and the assigned sensitivity of the link the significance of effect in relation to non-motorised user amenity is classified as potentially significant on two links (Link 9, Link 35A), and as not significant on ten links in relation to the increase in total vehicles on ARN.

12.10.18 In summary, the preliminary assessment indicates that there are potentially significant effects in relation to non-motorised user amenity on four links (Link 9, Link 35, Link 35A, and Link 50). The potentially affected links form part of construction access route (Scarborough Bank, Lynn Road, West Drove North and the A1104).

Fear and Intimidation

12.10.19 A further effect that traffic may have on pedestrians is fear and intimidation, which is dependent on the following factors: the volume of traffic, its HGV composition, its proximity to people or the lack of protection caused by factors such as narrow pavement widths.

12.10.20 The preliminary assessment set out in **Volume 2, Part 2, Appendix 2.12.D Traffic and Transport – Preliminary Construction Phase Effects** indicates that in relation to the links carried forward for preliminary assessment, the magnitude of change and assigned sensitivity of the link the significance of effect in relation to fear and intimidation is classified as not significant on all 16 links due to their being no step change between the without and with development scenarios in relation to the increase in vehicles on the ARN.

Road Safety

12.10.21 Following a preliminary assessment of personal injury collisions within the study area, it is considered that the frequency, severity, and spatial distribution of collisions do not represent a pattern that indicates there are inherent road safety issues within the study area.

12.10.22 Notwithstanding this, a full review, including an analysis of clusters, HGV movements and Killed or Seriously Injured would be undertaken in the ES for all links and junctions carried forward for further assessment. This would ensure a comprehensive road safety

analysis is undertaken, which is informed by the daily vehicle movements for the construction phase.

12.10.23 If there are any areas within the Study Area where there are underlying road safety issues that could be exacerbated by traffic movements associated with the English Onshore Scheme, then appropriate mitigation measures would be proposed. In addition, as set out in **Section 12.9** road safety audits would be undertaken of highway interventions where requested by the local highway authorities or National Highways, as appropriate.

Large Loads

12.10.24 The likely large loads (AIL) movements set out in **Table 12-22** would be assessed, with the results presented within the ES.

Table 12-22 - Likely Large (Abnormal Indivisible Loads) Frequencies

Element	Preliminary Route	Vehicle Type and Load	Total Frequency of Movement
Walpole B Substation	Sutton Bridge / Wisbech to Walpole Substation (or other defined route to be agreed with the local highway authorities and National Highways)	Transformer delivery vehicle to transport transformer from dock to Substation.	Single Delivery
EGL 3 Converter Station	Sutton Bridge / Wisbech to Walpole Substation (or other defined route to be agreed with the local highway authorities and National Highways)	Transformer delivery vehicle to transport transformers from dock to EGL 3.	Up to 7 deliveries
EGL 4 Converter Station	Sutton Bridge / Wisbech to Walpole Substation (or other defined route to be agreed with the local highway authorities and National Highways)	Transformer delivery vehicle to transport transformers from dock to EGL 4.	Up to 7 deliveries
EGL 3 HVAC and HVDC Underground Cables	Regional Routes (to be agreed with the local highway authorities and National Highways)	Cable Drum delivery vehicle to transport Cable Drums	Up to 266 deliveries

Element	Preliminary Route	Vehicle Type and Load	Total Frequency of Movement
EGL 4 HVAC and HVDC Underground Cables	Regional Routes (to be agreed with the local highway authorities and National Highways)	Cable Drum delivery vehicle to transport Cable Drums	Up to 254 deliveries

12.10.25 The requirements and routeing of AIL are still being determined and therefore detail to inform the assessment is not available at this stage. The ES would include preferred routes for the movement of AIL including vehicle type, route, anticipated time of movement(s) and the nature of any highway works/temporary closures required to accommodate the movement. Whilst this may lead to some congestion/increased journey times from temporary road closures/diversions and risks, experience from other projects would be employed to seek to minimise disruption and delay to other road users.

12.10.26 The ES would confirm the worst-case number of AIL movements, the route options, and the types of vehicles required. Any mitigation measures required to facilitate the delivery of AIL would be detailed in the ES and any resultant likely significant effects assessed. However, at this stage associated significant effects cannot be ruled out.

12.11 Further work to be undertaken

12.11.1 The information provided in this PEIR is preliminary, the final assessment of significant effects would be reported in the ES. This section describes the further work to be undertaken to support the traffic and transport assessment presented in the ES.

Baseline

12.11.2 The following baseline information would be collated to inform the work being undertaken for the ES.

- Additional existing traffic flow data on links where baseline data is absent in this chapter, or as a result of changes between the preparation of this PEIR chapter and the submission of the ES.
- Additional site visits are likely to be undertaken during May 2025 and again during 2026 closer to the submission of the ES.
- It is anticipated that additional traffic surveys would be undertaken during October 2025 ahead of the submission of the ES to inform existing available baseline traffic counts.
- In order to inform the design of visibility splays and minimise impacts from implementation of any visibility splays required, such as vegetation loss, speed data would be obtained to inform visibility splay design, subject to agreement with the relevant local highway authority.

- Up to date personal injury collisions data would be obtained from the local highway authorities.
- PROW data usage would be collected, if required. Following discussions with the PRoW officers within the relevant Local Authorities PRoW baseline user survey data would be collected in 2025 where required. Surveys would be conducted with classified user counts undertaken over a 12-hour (7am-7pm) period on a typical weekday and weekends via a manual and/or video survey or as otherwise agreed with the Local Highway Authority.

Assessment

12.11.3 This chapter provides preliminary assessment based on the development of the English Onshore Scheme to date and data gathered at this point. The ES would include updated construction access route details based on the design presented in the DCO application.

12.11.4 If the River Nene Temporary Quay is retained as part of the Projects' design, the traffic modelling would be updated to take account of the removal of vehicle movements from the highway network as a result. The intention is that this quay may potentially be used for the transportation of construction materials and converter stations equipment.

12.11.5 The ES would include an assessment of the potential effects related to driver delay and public transport delay to passengers. The ES would also include an updated assessment of the following:

- Potential effects related to severance and pedestrian delay (incorporating to delays to all non-motorised users).
- Potential effects related to non-motorised user amenity.
- Potential effects related to fear and intimidation.
- Potential effects on road safety.

12.11.6 **Table 12-8** provides a summary of recreational PRoW routes that have initially been identified as having the potential for higher usage. These routes and any others identified through discussions with PRoW officers would be assessed, either as part of the traffic and transport chapter at the ES stage, or related chapter such as Socio-economics, health and wellbeing, and/or landscape as appropriate.

Further environmental measures

12.11.7 The Outline PRoW Management Plan and Outline CTMP would be developed further prior to the submission of the ES and shared with the highway authorities in advance for review, comment, and subsequent refinement.

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