The Sizewell C Project

6.6 Volume 5 Two Village Bypass

Chapter 8 Amenity and Recreation

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8 Amenity and Recreation

8.1 Introduction

8.1.1 This chapter of **Volume 8** of the **Environmental Statement (ES)** presents an assessment of the potential effects on amenity and recreation arising from the construction and operation of the two village bypass (referred to throughout this volume as the 'proposed development'). This includes an assessment of potential impacts, the significance of effects, the requirements for mitigation and the residual effects.

8.1.2 Detailed descriptions of the two village bypass site (referred to throughout as the 'site'), the proposed development and the different phases of development are provided in **Chapters 1** and **2** of this volume of the **ES**. A glossary of terms and list of abbreviations used in this chapter is provided in **Volume 1, Appendix 1A** of the **ES**.

8.1.3 This chapter assesses potential effects that may result from disturbance of users of nearby public rights of way (PRoW) (comprising footpaths, bridleways, restricted byways and byways open to all traffic), cycle routes, outside recreational facilities, access land and public open space (such as recreational resources) from a range of changes, including changes to views, noise, dust and other atmospheric emissions, and traffic.

8.1.4 This assessment has been informed by data from other assessments as follows:

- **Chapter 4** of this volume: Noise and vibration;
- **Chapter 5** of this volume: Air quality;
- **Chapter 6** of this volume: Landscape and visual; and
- **Volume 2, Chapter 10** of the **ES:** Transport.

8.2 Legislation, policy and guidance

8.2.1 **Volume 1, Appendix 6K** of the **ES**, identifies and describes legislation, policy and guidance of relevance to the assessment of the potential amenity and recreation impacts associated with the Sizewell C Project across all **ES** volumes.

8.2.2 This section provides an overview of the specific legislation, policy and guidance of specific relevance to the amenity and recreation assessment of the proposed development.

a) International

No international legislation or policy is relevant to the assessment of amenity and recreation of the proposed development.

b) National

8.2.3 This assessment has been prepared with due regard to the requirements of the countryside and Rights of Way Act 2000.

8.2.4 The overarching National Policy Statement for Energy (EN-1) (Ref. 8.1) and the National Policy Statement for Nuclear Power Generation (EN-6) (Ref. 8.2) set out the requirements for amenity and recreation associated with the development of major energy infrastructure.

8.2.5 Other relevant national policy documents, including the National Planning Policy Framework (NPPF) 2019 (Ref. 8.3), and Planning Practice Guidance (Ref. 8.4 – 8.7), set out legislation and guidance in relation to Open Access Land, PRoW, protecting tranquil areas, the benefits of recreation to health and well-being, and light pollution.

8.2.6 The requirements set by these documents, as relevant to the amenity and recreation assessment of the proposed development, are discussed in detail in **Volume 1, Appendix 6K** of the **ES**.

c) Regional

8.2.7 No regional legislation or policy is relevant to the assessment of amenity and recreation effects for the proposed development.

d) Local

8.2.8 **Volume 1**, **Appendix 6K** of the **ES** summarises the requirements of Suffolk Coastal District Council (SCDC) Local Plan Core Strategy and Development Management Policies 2013 (Ref. 8.8), and SCDC Final Draft Local Plan 2019 (Ref. 8.9), as relevant to the amenity and recreation assessment.

e) Guidance

8.2.9 Relevant guidance relating to the assessment of amenity and recreation effects include:

- Suffolk Green Access Strategy DRAFT – Rights of Way Improvement Plan (ROWIP) (Ref. 8.10); and
- Suffolk Access Principles for Sizewell C (Ref. 8.11).

8.2.10 This guidance as relevant to the assessment of amenity and recreation effects, are set out in **Volume 1, Appendix 6K** of the **ES**.

8.3 Methodology

a) Scope of the assessment

8.3.1 The generic Environmental Impact Assessment (EIA) methodology is detailed in **Volume 1**, **Chapter 6** of the **ES**.

8.3.2 The full method of assessment for amenity and recreation that has been applied for the Sizewell C Project is included in **Volume 1**, **Appendix 6K** of the **ES**.

8.3.3 This section provides specific details of the amenity and recreation methodology applied to the assessment of the proposed development and a summary of the general approach to provide appropriate context for the assessment that follows. The scope of assessment considers the impacts of the construction and operation of the proposed development.

8.3.4 The scope of this assessment has been established through a formal EIA scoping process undertaken with the Planning Inspectorate. A request for an EIA Scoping Opinion was initially issued to the Planning Inspectorate in 2014, with an updated request issued in 2019. Refer to **Volume 1, Appendix 6A** of the **ES** for further details.

8.3.5 Comments raised in the EIA Scoping Opinion received in 2014 and 2019 have been taken into account in the development of the assessment methodology. These are detailed in **Volume 1, Appendices 6A** to **6C** of the **ES.**

8.3.6 The amenity and recreation impact assessment considers the effects of the proposed development on users of PRoW, permissive footpaths, long distance recreational routes, cycle routes and accessible open spaces such as (*inter alia*) common land, nature reserves, sports facilities and water bodies.

8.3.7 The assessment considers the effects on the experience of users of amenity and recreation resources as a result of:

- physical changes to resources (for example, changes to PRoW through diversions or creation of new road crossings);
- changes to the experience people have when using recreational resources due to perceptual or actual changes to views, noise, air quality or traffic movements; and

- changes to the experience people have when using recreational resources due to increases in the numbers of people using them.

8.3.8 This assessment also considers the effects on tranquillity experienced by recreational receptors as part of the overall assessment on amenity and recreation.

8.3.9 There is no specific or general guidance on the amenity and recreation impact assessment. The agreed methodology and study areas used in this chapter are informed by professional experience, review of other projects, and through discussion and agreement with relevant consultees.

b) Consultation

8.3.10 The scope of the assessment has also been informed through consultation and engagement with statutory consultees throughout the design and assessment process.

8.3.11 The amenity and recreation impact assessment methodology and the study areas for the Sizewell C Project were consulted on between 2015 and 2019 as described in **Volume 1**, **Appendix 6K** of the **ES**. The final methodology, which included the approach to the assessment of tranquillity, and study areas were discussed at a meeting with Suffolk County Council (SCC), Natural England, Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) Partnership and the Suffolk Local Access Forum (SLAF) on 7 February 2019. The agreed methodology report (including study areas) was issued to SCC, East Suffolk Council (ESC), Natural England, Suffolk Coast and Heaths AONB Partnership and SLAF on 24 June 2019. No further comments on the methodology were received from consultees, nor were any other responses raised specifically in relation to the proposed development.

c) Study area

8.3.12 The study area includes the land within the site boundary and the land immediately beyond to a distance of 1 kilometre (km). Refer to **Figure 8.1** of this chapter for further details.

8.3.13 The determination of the study area was informed following a review of the proposals, supported by site visits, and an understanding of potential effects due to changes in views, noise and air quality, potential changes to numbers of people using resources and physical changes to resources as a result of the proposed development.

8.3.14 The 1km study area was agreed with statutory consultees and included in the EIA Scoping Report, provided in **Volume 1, Appendix 6A** of the **ES**.

d) Assessment scenarios

8.3.15 The assessment of effects on amenity and recreation includes the assessment of both the construction and operational phases of the proposed development, rather than specific assessment years.

8.3.16 For the assessment of operational effects, the 'worst case' traffic levels are assessed (i.e. during construction of the main development site), which would reduce after construction of the main development site is completed. During operation, the 'worst case' visual effects are also assessed (i.e. before planting matures), which would reduce over time as proposed planting matures and provides visual screening and helps to integrate the proposed development into the landscape.

8.3.17 The assessment of effects during construction and operation includes potential changes in tranquillity as one of a number of factors influencing overall effects on amenity and recreation. During operation, this considers the 'worst case' scenarios described in the paragraph above.

8.3.18 A more detailed assessment of effects on tranquillity is provided in **section 8.6** of this chapter for the permanent operation of the two village bypass after completion of construction of the main development site. This is informed by a detailed assessment of tranquillity in relation to potential changes to noise following the natural tranquillity method; further information is provided in **Appendix 8A** of this chapter. The more detailed assessment of effects on tranquillity is included as one of a number of factors influencing the overall effects on amenity and recreation, to give a more detailed understanding of the permanent effects of the proposed development.

e) Assessment criteria

8.3.19 As described in **Volume 1**, **Chapter 6** of the **ES**, the EIA methodology considers whether impacts of the proposed development would have an effect on any resources or receptors. Assessments broadly consider the magnitude of impacts and value/sensitivity of resources/receptors that could be affected in order to classify effects.

8.3.20 A detailed description of the assessment methodology used to assess the potential effects on amenity and recreation arising from the proposed development is provided in **Volume 1, Appendix 6K** of the **ES**. A summary of the assessment criteria used in this assessment is presented in the following sub-sections.

i. Sensitivity

8.3.21 The assessment of sensitivity is formed with reference to the criteria summarised in **Table 8.1**. Sensitivity combines considerations of value and susceptibility and is assessed within the range of high, medium, low and very low.

Table 8.1: Sensitivity assessment summary.

Sensitivity	Description
High	Value: receptors using a resource that is recognised at the national level for recreation or resources within landscapes (for example, designated landscapes) that draw people nationally to experience their special qualities. Susceptibility: Receptor has a very low capacity to accommodate the proposed form of change.
Medium	Value: receptors using a resource that is recognised at the regional or district level for recreation, or resources which lie within a landscape regionally or locally designated for reasons including its recreational value. Susceptibility: Receptor has a low capacity to accommodate the proposed form of change.
Low	Value: receptors using a resource that is appreciated by the local community but has little or no wider recognition of its value for recreation. Susceptibility: Receptor has some tolerance to accommodate the proposed form of change.
Very low	Value: receptors using a resource that is degraded and with little or no evidence of being valued by the community for recreation. Susceptibility: Receptor is generally tolerant and can accommodate the proposed form of change.

8.3.22 Assessments of susceptibility and value may be different and professional judgement will always be used to conclude on the judgement of sensitivity. For example, value may be high and susceptibility may be low, and a professional judgement will be made to determine whether sensitivity is high, low or in between, supported by narrative explanation.

ii. Magnitude

8.3.23 Magnitude of impact is based on the impact that the proposed development would have upon the amenity and recreation receptor. It is assessed within the range of high, medium, low and very low with consideration given to scale, duration and extent of impact with reference to the following criteria.

8.3.24 Scale of impact identifies the degree of change which would arise from the development. It is rated on the scale summarised below:

- large – total or major alteration to the ability to perform the amenity and recreation activity, or to the amenity and recreation experience;
- medium – partial alteration to the ability to perform the amenity and recreation activity, or to the amenity and recreation experience;
- small – minor alteration to the ability to perform the amenity and recreation activity, or to the amenity and recreation experience; and
- negligible – very minor alteration to the ability to perform the amenity and recreation activity, or to the amenity and recreation experience.

8.3.25 Duration of impact indicates the timescale over which it will be experienced. In this case, the proposed development will be permanent and would remain in situ following completion of the Sizewell C main development site. The following durations are relevant to the assessment of magnitude:

- Permanent – 25 years or more.
- Long term – 10 to 25 years.
- Medium term – 2 to 10 years.
- Short term – 0 to 2 years.

8.3.26 Extent of impact indicates the geographic area of the resource used by the receptors over which the impacts will be experienced. This is determined as follows:

- Limited – small part of receptor area[1] (less than 10%).
- Localised – part of receptor area (more than 10% but up to 25%).
- Intermediate – approximately half of receptor area.

[1] Defined as the area or length of the resource used by receptors. For example, the length of a PRoW.

- Wide – more than half of receptor area.

8.3.27 The degree to which each of the three criteria of scale, duration and extent influences the assessment of magnitude will be weighed by professional judgement and clearly described.

iii. Effect definitions

8.3.28 Following the assessment of the sensitivity of the receptor and magnitude of impacts, effects are assessed by professional judgement with reference to the matrix shown in **Table 8.2**.

Table 8.2: Classification of effects.

Magnitude	Sensitivity of Receptor			
	Very low	**Low**	**Medium**	**High**
Very low	Negligible	Negligible	Minor	Minor
Low	Negligible	Minor	Minor	Moderate
Medium	Minor	Minor	Moderate	Major
High	Minor	Moderate	Major	Major

8.3.29 The definition of these effects is provided in **Table 8.3**.

Table 8.3: Definition of effects.

Effect	Description
Major	Effects, both adverse and beneficial, which are likely to be important considerations at a national to regional level because they contribute to achieving national/regional objectives, or, which are likely to result in exceedance of statutory objectives and/or breaches of legislation.
Moderate	Effects which are likely to be important considerations at a regional and local level.
Minor	Effects that could be important considerations at a local level.
Negligible	Effects that are likely to have negligible or neutral influence, irrespective of other effects.

8.3.30 Intermediate ratings may also be given, e.g. ‘major-moderate’ and ‘moderate-minor’. Moderate-minor, for example, indicates an effect that is both less than moderate and more than minor, rather than one which varies across the range. In such cases, the higher rating will always be given first; this does not mean that the impact is closer to that higher rating. Intermediate ratings may also be used for judgements of magnitude.

8.3.31 Following the classification of an effect, a clear statement is made as to whether the effect is 'significant' or 'not significant'. As a general rule, major, major-moderate and moderate effects are considered to be significant, and moderate-minor, minor and negligible effects are considered to be not significant. However, professional judgement is also applied, where appropriate.

8.3.32 Effects are defined as adverse, neutral or beneficial. Neutral effects are those which overall are neither adverse nor beneficial but may incorporate a combination of both. The decision regarding the classification of effect and the decision regarding whether an effect is adverse, neutral or beneficial are entirely separate.

f) Tranquillity

8.3.33 The effects on tranquillity experienced by amenity and recreation receptors is one of the factors that is considered when assessing impacts on amenity and recreation.

8.3.34 Five factors, listed below, are considered in assessing the effects on tranquillity experienced by amenity and recreation receptors due to the proposed development: noise, views, air quality, traffic and people. These are some of the same factors described in the assessment criteria in **Table 8.3** to assess overall amenity and recreation impacts. Locations where 'natural' sounds, views, smells etc. predominate are generally more tranquil than locations where 'man made' sounds, views, smells etc. predominate.

- Noise: **Chapter 4** of this volume includes an assessment of noise for the proposed development. **Appendix 8A** of this chapter considers absolute noise levels and the character of the noise (including whether sounds are 'natural' or 'man made') following the natural tranquillity method.

- Visual: This assessment draws on **Chapter 6** of this volume and field assessment to identify the character of the existing visual environment and the degree to which it is of predominantly 'natural' or 'man made' built elements, and the degree to which the proposed development would change this.

- Transport: This assessment draws on **Volume 2, Chapter 10** of the **ES** to identify the degree to which traffic movements caused by the proposed development may affect tranquillity.

- Air Quality: This assessment draws on **Chapter 5** of this volume to identify the degree to which air borne emissions and dust caused by the proposed development may affect tranquillity.

- People: Increases in people using the receptor, for example, increased usage on PRoW could affect tranquillity (i.e. crowding or more intensive use of PRoW spoiling amenity).

8.3.35 To provide an understanding of the existing tranquillity and the effects that the proposed development would have on it, **Appendix 8A** of this chapter includes an assessment of tranquillity in relation to noise for the operational phase of the proposed development after completion of the main development site, following the Natural Tranquillity Method. This considers the existing and predicted noise levels and the character of the sound. In considering effects on tranquillity, the natural tranquillity method considers four factors:

- The overall level of sound (how loud or quiet it is).

- The relative levels of man-made and natural sounds.

- The proportion of the time during which only natural sounds are present.

- The amount of transportation noise.

8.3.36 These parameters are assessed in **Appendix 8A** of this chapter using the natural tranquillity method to provide a noise tranquillity score for existing (baseline) conditions and for the operation of the proposed development after completion of construction of the main development site, along with narrative description for receptors. The natural tranquillity method uses a nine point tranquillity score from 1 (frantic / chaotic / harsh) to 9 (perfect tranquillity) as shown in **Table 8.4**.

8.3.37 The assessment in **section 8.6** of this chapter draws on the results of the Natural Tranquillity Method Assessment and also considers views, traffic, air quality and people, where they add information not already accounted for by the natural tranquillity method. The existing (baseline) tranquillity and predicted tranquillity as a result of the proposed development are summarised in **section 8.6** of this chapter using a five-level descriptive scale: not tranquil; neutral tranquillity; fairly tranquil; good tranquillity; and excellent tranquillity shown in column C of **Table 8.4**. These broadly correspond with the natural tranquillity method nine-point scale as shown in columns A and B of **Table 8.4**. The nine-point score has been reduced to

five levels to provide a simpler scale for the final judgements in relation to amenity and recreation.

Table 8.4: Tranquillity levels.

A. Natural Tranquillity Method Tranquillity Score	B. Natural Tranquillity Method Tranquillity Description	C. Amenity and Recreation Tranquillity Description
1	Frantic / chaotic / harsh	Not tranquil
2	Busy / noisy	
3	Unsettled / slightly busy	
4	Not quite tranquil	Neutral tranquillity
5	Just tranquil	
6	Fairly tranquil	Fairly tranquil
7	Good tranquillity	Good tranquillity
8	Excellent tranquillity	Excellent tranquillity
9	Perfect tranquillity (theoretical)	

g) Assessment methodology

8.3.38 The methodology has the following key stages, which are described in more detail in **Volume 1, Appendix 6K** of the **ES**:

- Baseline – includes the gathering of documented information; development of the scope of the assessment in consultation with statutory consultees; site visits and early input into the initial stages of design. Baseline site visits were undertaken during June and December 2018 and February to March 2019.
- Design – input into the design including mitigation options to avoid or minimise amenity and recreation impacts where possible.
- Assessment – includes an assessment of the amenity and recreation effects of the design of the proposed development, requiring site work, liaison with the noise, air quality, landscape and visual and transport consultants. Assessment site visits were undertaken during June and July 2019.
- Cumulative Assessment – assesses the effects of the proposed development in combination with other developments, where required. Further details are provided in **Volume 10** of the **ES**.

h) Assumptions and limitations

8.3.39 The following assumptions have been made in this assessment:

- The assessment is based on the description of development at **Chapter 2** of this volume of the **ES**, including the site parameters as set out at **section 2.3** of **Chapter 2,** and illustrated on the **Work Plans** (Doc Ref. 2.3) which is reproduced in **Appendix 2A** in this volume of the **ES**.
- It is assumed that the estimated growth rates for proposed planting, indicated in the Landscape and Visual Assessment provided in **Chapter 6** of this volume, will be achieved.
- It is assumed that the PRoW that currently cross the proposed development would require temporary and permanent diversions in accordance with the detailed Rights of Way plans in **Chapter 2 Appendix A2** of this volume of the **ES**.
- Assumptions have been made on the likely use of recreational routes based on site observations when undertaking baseline and assessment site visits.
- The Noise and Vibration Assessment, included in **Chapter 4** of this volume of the **ES**, identifies assumptions in relation to construction vibration levels, compaction work for the proposed Foxburrow Wood overbridge (referred to as the 'Foxburrow Wood footbridge'), and surfacing of temporary contractor compounds.
- Tranquillity is not absolute and is relative to people's expectations in a particular location, and there are no standard nationally accepted ways of measuring effects on tranquillity in relation to amenity and recreation. The Amenity and Recreation Assessment in this chapter is based on factors relating to tranquillity described earlier in this section.

8.3.40 The following limitations have been identified:

- No surveys of PRoW users were undertaken at this site. As agreed with SCC, additional PRoW surveys were not considered necessary to support this assessment.
- The Noise and Vibration Assessment, included in **Chapter 4** of this volume, identifies limitations in relation to construction methodology and best estimates to predict noise and vibration during construction.

- The Noise Tranquillity Assessment, following the Tranquillity Assessment reported in **Appendix 8A** of this chapter, is based on baseline surveys at selected locations shown on **Figure 8.2** of this chapter; chosen to provide representation of the recreational resources likely to be affected by changes to the noise environment, at a moment in time. Survey work was only carried out during weekdays when the area was less used by the public. However, it is considered that the Noise Tranquillity Assessment using the natural tranquillity method provides robust data to inform this impact assessment.

8.4 Baseline environment

a) Current baseline

8.4.1 This section provides a description of the existing amenity and recreation resources and receptors in the vicinity of the proposed development. Recreational resources within the study area for the two village bypass are illustrated on **Figure 8.1** of this chapter.

8.4.2 There are six footpaths registered as PRoW located within the site, all of which follow a broadly north-south alignment across and adjacent to the site:

- Footpath E-137/028/0 connects Friday Street to the south with Footpath E-137/028/A and Manor Farm to the east.
- Footpath E-137/029/0 connects Mollett's Farm to the west with Friday Street to the east.
- Footpath E-243/001/0 connects Farnham to the north with Burnt House Farm to the south.
- Footpath E-243/003/0 connects Foxburrow Wood to the east with Farnham to the west.
- Footpath E-243/004/0 connects Farnham to the west with fields to the east.
- Footpath E-243/011/0 connects Footpath E-243/003/0 to the west with a minor road to the east.

8.4.3 Forty-two PRoW are located outside of the site but within the study area. These include:

- Footpaths E-137/030/0, E-137/031/0, E-243/005/0, E-243/006/0, E-243/007/0, E-243/008/0, E-243/009/0 and E-243/010/0 which, with E-243/003/0, E-243/004/0 and E-243/011/0. These footpaths make up circular footpath routes extending from Farnham to the A1094 and back to the village via Foxburrow Wood and Farnham Hall.

- Fourteen PRoW lie to the north of the A12. These include Byway E-137/033/0 and Footpaths:

  - E-137/001/0.
  - E-137/002/0.
  - E-137/004/0.
  - E-137/005/0.
  - E-137/006/0.
  - E-137/032/0.
  - E-374/006/0.
  - E-374/007/0.
  - E-502/005/0.
  - E-502/006/0.
  - E-502/007/0.
  - E-502/008/0.
  - E-502/009/0.

- Footpaths E-141/006/0, E-141/037/0, E-243/002/0, E-374/009/0 and E-374/010/0 which extend to the south of the site, linking with E-243/001/0.

- Footpaths E/243/012/0, E-243/013/0 and E-243/015/0 which extend to the south to Botany Farm from E-243/003/0.

- Footpaths E-243/014/0 and E-470/024/0, as well as restricted byway E-243/017/0, running in an east west direction to the east of the site near Botany Wood.

- Footpaths E-137/026/0, E-137/027/0, E-137/029/A, E-137/034/0, E-470/007/0 and E-491/003/0 in the east of the study area, between Friday Street, Benhall Green and Snape Watering.

- Restricted byway E-243/016/0 which runs broadly north south to the east of the East Suffolk railway line.

8.4.4 Sustrans Regional Cycle Route 41 runs north-south through the west of the study area, including running through the western edge of the site where it links to the A12. The Regional Cycle Route 41 coincides with the Suffolk Coastal Cycle Route.

8.4.5 Apart from local roads within the villages which may be used for walking, horse-riding or cycling, there are no other amenity and recreation resources potentially impacted by the proposed development.

b) Future baseline

8.4.6 There are no committed developments or forecasted changes that would materially alter the baseline conditions during the construction and operation phases of the proposed development or would create any additional amenity and recreation receptors that would need additional consideration in this assessment.

8.5 Environmental design and mitigation

8.5.1 As detailed in **Volume 1**, **Chapter 6** of the **ES**, a number of primary mitigation measures have been identified through the iterative EIA process and have been incorporated into the design and construction planning of the proposed development. Tertiary mitigation measures are legal requirements or are standard practices that will be implemented as part of the proposed development.

8.5.2 The assessment of likely significant effects of the proposed development assumes that primary and tertiary mitigation measures are in place. For amenity and recreation, these measures are identified below, with a summary provided on how the measures contribute to the mitigation and management of potentially significant environmental effects.

a) Primary mitigation

8.5.3 Primary mitigation is often referred to as ‘embedded mitigation’ and includes modifications to the location or design of the proposed development to mitigate impacts; these measures become an inherent part of the proposed development.

8.5.4 Some primary mitigation measures that are described in the description of the development in **Chapter 2** of this volume and the following volumes and chapters also apply to this assessment. These measures are summarised below:

- Primary mitigation measures, described in **Volume 2, Chapter 10** designed to minimise and manage additional traffic on roads that could affect recreational receptors:
  - accommodation campus at the main development site for 2,400 workers to reduce construction workforce trips on the highway network;
  - caravan park and the LEEIE for 600 workers, who will be bussed to site in order to reduce the construction workforce trips on the highway network;
  - park and ride facility at the LEEIE in the early years to bus workers to the main development site;
  - northern park and ride facility at Darsham and southern park and ride facility at Wickham Market to intercept construction workforce trips and bus construction workers between the park and ride facilities and the main development site;
  - direct bus services to transport construction workers to the main development site, to reduce construction workforce trips on the highway network;
  - beach landing facility to enable the delivery of AILs by sea during construction and operation;
  - Saxmundham to Leiston branch line upgrades, rail extension into the LEEIE and green rail route in order to enable the transportation of construction material by rail and thereby reduce the number of heavy goods vehicles (HGVs) on the road;
  - freight management facility at Seven Hills to manage the flow and route of HGVs on the highway network to the main development site; and
  - package of highway improvement works, including the two village bypass, Sizewell link road, Yoxford roundabout and other highway improvement schemes to mitigate the transport effects of the residual Sizewell C Project related traffic.
- Noise and Vibration, **Chapter 4** of this volume – primary mitigation measures during construction and operation relevant to the Amenity and Recreation Impact Assessment include the sinking of the route of the proposed two village bypass into cutting as it passes between Farnham Hall and Farnham Hall Farmhouse to provide some reduction in noise levels experienced by nearby receptors.

- Air Quality, **Chapter 5** of this volume – there are no primary mitigation measures relevant to the Amenity and Recreation Impact Assessment.

- Landscape and Visual Amenity, **Chapter 6** of this volume – primary mitigation measures during construction and operation relevant to the amenity and recreation impact assessment include:

  - the retention of vegetation where possible, with additional hedgerow planting proposed along the route of the proposed development to integrate the road with the surrounding landscape and to compensate for the loss of hedgerows severed by the route;
  - the sinking of the route of the proposed two village bypass into a cutting as it passes between Farnham Hall and Farnham Hall Farmhouse to mitigate visual effects on recreational receptors;
  - proposed woodland planting along the western side of the cutting and the proposed Foxburrow Wood footbridge, to provide visual screening; and
  - the route of the proposed two village bypass would be mostly unlit except at the A12 western roundabout and the A12/A1094 eastern roundabout.

8.5.5 During the construction stage of the proposed development, two PRoW (E-243/003/0 and E-243/004/0) would be subject to temporary diversions; Detailed Rights of Way plans are provided in **Appendix 2A** of this volume. These are intended to facilitate construction of the proposed development while ensuring that users continue to have access to a safe, well connected PRoW network. In all cases, diversions would be kept as short as possible to minimise disruption. The proposed temporary diversions would be as follows and would last for up to 24 months:

- Footpath E243/003/0 would be temporarily diverted south to cross the work area at grade, approximately 350m south of its existing location.

- Footpath E-243/004/0 would be temporarily diverted north to cross the work area at grade, approximately 200m north of its existing location (on the current alignment of E-137/029/0).

8.5.6 The permanent PRoW diversions proposed, detailed in **Appendix 2A** of this volume, would be as follows:

- Once construction is complete, users of Footpath E-243/003/0 would be permanently diverted via the Foxburrow Wood footbridge (which would serve non-motorised users and not vehicles).

- Once construction is complete, users of Footpath E-243/004/0 would be permanently diverted via the Foxburrow Wood footbridge.

- Footpath 243/001/0 would be diverted east by approximately 25m to allow the public footpath to cross the proposed two village bypass at a flat location.

- Footpath E-137/029/0 would be diverted south-west by approximately 25m to allow the alignment of the diversion to accommodate the proposed embankment slopes of the proposed two village bypass.

b) Tertiary Mitigation

8.5.7 Tertiary mitigation will be required regardless of any EIA assessment, as it is imposed, for example, as a result of legislative requirements and/or standard sectoral practices.

8.5.8 Tertiary mitigation measures that are described in the technical chapters listed above in relation to primary mitigation would also apply to this chapter, including measures within **Part C** of the **Code of Construction Practice (CoCP)** (Doc Ref. 8.11), to minimise effects during the construction phase. These include measures to minimise noise and dust generation during construction; and minimise the use of and impacts arising from lighting during all phases.

8.5.9 During construction, a **Construction Traffic Management Plan** (Doc Ref. 8.7), a **Construction Worker Travel Plan** (Doc Ref. 8.8) and a **Worker Code of Conduct** (Doc Ref. 8.16) would be implemented to help govern worker behaviour and reduce and manage the effects of traffic generated by the Sizewell C Project. Further details are provided in **Volume 2, Chapter 10** of the **ES**.

8.5.10 Measures set out in **Chapter 4** of this volume to control noise during the construction phase include:

- selection of quiet plant and techniques in accordance with good practice in BS5228 (Ref. 8.12) for all construction, demolition and earthwork activities;

- switching off equipment when not required;

- use of reversing alarms that ensure proper warning whilst minimising noise impacts off-site;
- provision of training and instruction to construction site staff on methods and techniques of working to minimise off-site noise and vibration impacts; and
- where percussive piling is necessary, and where it is feasible to do so, a resilient dolly will be used between the hammer and driven head, or an acoustic shroud would will used to enclose the percussive elements.

8.5.11 Measures set out in **Chapter 5** of this volume to control dust during the construction phase include:

- positioning site entrances as far practicable from sensitive receptors;
- locating any mobile crushing and screening plant as far as practicable from sensitive receptors;
- covering potentially dusty loads (loose earth, spoil, aggregates etc.) in transit;
- avoid direct site run-off of water or mud;
- cover, seed or fence stockpiles to prevent wind whipping;
- ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate;
- display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary; and
- develop and implement a **Dust Management Plan**, which may include measures to control other emissions as part of the **CoCP** (Doc Ref. 8.11).

8.5.12 Measures set out in **Chapter 6** of this volume to minimise visual impacts during the construction phase include:

- avoidance of unnecessary tree removal and appropriate protection of trees and vegetation to be retained;

- design of hoardings around construction activities to include consideration of the character of the surrounding landscape; and
- site lighting will be positioned and directed to minimise intrusion into sensitive areas.

8.6 Assessment

a) Introduction

8.6.1 This section presents the findings of the Amenity and Recreation Impact Assessment for the construction and operation of the proposed development.

8.6.2 This section identifies the amenity and recreation resources that would be affected by the proposed development, the degree to which they would be affected, and any likely significant effects that are predicted to occur. **Section 8.7** of this chapter highlights the secondary mitigation and monitoring measures that are proposed to minimise any adverse significant effects (if reasonably practicable).

8.6.3 Given the nature of the proposed development, the environmental design mitigation measures proposed, and the assessment set out in other technical chapters of this volume, as referenced in **section 8.1** of this chapter, it is judged that the following impacts would be expected:

- Footpaths E-243/003/0 and E-243/004/0 would be affected by a temporary diversion during the construction phase. The operation stage of the proposed development, including the introduction of a Foxburrow Wood footbridge, would also require permanent diversions to both PRoW. Users could experience visual, noise and air quality impact changes.
- Footpaths E-137/029/0 and E-243/001/0 would be diverted post-construction, users could experience visual, noise and air quality impact changes and changes due to traffic where they cross the proposed road.
- Changes to the noise environment would also be noticeable to users of parts of the circular network of PRoW close to the site (E-137/028/0, E-137/030/0, E-137/031/0, E-243/005/0, E-243/006/0 and E-243/007/0) during construction stages due to the nature of construction activity and traffic during operation. Further details are outlined in **Appendix 8A** of this chapter and **Chapter 4** of this volume of the **ES**.

- Negligible changes to air quality would occur during the construction and operation stages. See **Chapter 5** of this volume of the **ES** for further details.

- Noticeable, localised visual effects would arise for users of the circular network of PRoW immediately adjacent to the site (E-137/028/0, E-137/030/0, E-137/031/0, E-243/005/0, E-243/006/0 and E-243/007/0). More distant views would be experienced by users of E-243/002/0 and E-374/009/0 to the south. Visual effects on users of other PRoW in the wider study area would be too limited to affect recreational amenity. Further details are outlined in **Chapter 6** of this volume of the **ES**.

- Although some visual effects would arise for users of Sustrans RCR41/Suffolk Coastal Cycle Route, changes to noise would be negligible due to its proximity to the existing alignment of the A12.

- The road would not be lit during operation, apart from at the A12 western roundabout and the A12/A1094 eastern roundabout. Lighting at these locations would introduce artificial light on previously unlit sections of road.

8.6.4 On this basis, the following amenity and recreation resources are taken forward for further assessment owing to their location within or adjacent to the site, and the potential for significant effects to arise:

- Footpaths 243/001/0, E-243/003/0, E-243/004/0 and E-137/029/0 E- which would be permanently diverted as a result of the development.

- Footpath E-137/028/0 which would cross the proposed development on its existing alignment.

- Additional footpaths that make up a circular network of PRoW to the south of the A12 between Farnham and the A1094.

- Footpaths E-243/002/0 and E-374/009/0 to the south of the proposed development.

- Sustrans Regional Cycle Route 41/Suffolk Coastal Cycle Route.

8.6.5 The users of the other amenity and recreation resources identified within the study area would likely experience negligible effects and are therefore not considered in further detail.

i. Sensitivity of receptors

8.6.6 The footpaths identified above are definitive PRoW and provide direct connections with the wider PRoW network and to Farnham. However, they are outside of any designated landscapes and are generally likely to be valued by the local community but not more widely. The value of these PRoW is judged to be low, and susceptibility is judged to be high, and users are therefore of medium sensitivity.

8.6.7 The Sustrans Regional Cycle Route 41 and the Suffolk Coastal Cycle Route is a regionally recognised cycle route and is therefore judged to be of medium value and medium susceptibility, and users are therefore of medium sensitivity.

b) Construction

i. Introduction

8.6.8 The impacts during construction would arise for up to 24 months in the early years of the Sizewell C Project. It is anticipated that construction would start at the north-eastern end of the bypass, at the A12/A1094 (Friday Street) junction where a roundabout is proposed. It would then move in a south-westerly direction to the proposed roundabout junction with the A12 east of Parkgate Farm and Stratford Plantation.

8.6.9 It is envisaged that all construction works would be managed from a temporary contractor compound proposed to be located at the eastern end of the bypass, west of the A12/A1094 Friday Street roundabout.

8.6.10 Due to the nature of construction works, which involve different plant/machinery and types of activity, effects would vary throughout this time period. Where appropriate, consideration is given to the variable scale of impacts over the duration of the construction phase.

8.6.11 The principal components of the construction phase likely to result in impacts on the amenity and recreation receptors are considered to be:

- noise and movement from the operation of machinery and vehicles including HGVs and equipment involved in the construction of the road;
- earthworks and excavation, including the clearance of vegetation, removal of soil, road construction and surfacing, construction of bridges and civil structures, utility and drainage installation, construction of pavements, kerbs, footways and paved areas; and

- the temporary diversion of footpaths E-243/003/0 and E-243/004/0. Each footpath would be diverted at a grade crossing of the works area at a suitable location.

- The alignment of footpaths E-137/028/0, E-137/029/0 and E-243/001/0 would be retained during construction with at grade crossings of the work area. In the case of E-137/029/0 and E-243/001/0, this would be until the permanent diversions of the public footpaths are available.

8.6.12 Daytime work would take place during Monday to Saturday 07:00 to 19:00, with no working on Sundays or bank holidays. However, some activities may require working outside of these hours, and ESC would be notified in advance.

8.6.13 Further details of construction activities and timings can be found in **Chapter 2** of this volume of the **ES**.

8.6.14 **Volume 2, Chapter 10** of the **ES** indicates that there would be an increase in vehicle movements on the existing A12 during the early years of construction of the main development site; this has the potential to affect the experience of users of recreational resources adjacent to the A12.

8.6.15 It is unlikely that the proposed development would lead to increases in people using resources during construction to the extent that they would contribute to effects on amenity and recreation including tranquillity. Increases in people is therefore not considered in assessing effects of the proposed development during construction.

ii. Effects on recreational routes

Footpaths E-243/003/0 and E-243/004/0

8.6.16 These footpaths currently pass through a rural landscape including views of fields, trees and woodlands, and with natural sounds dominating. They appear to be well-used, providing attractive walks from the Farnham.

8.6.17 During construction of the proposed development, Footpaths E-243/003/0 and E-243/004/0 would be diverted, as described in the primary mitigation section. E-243/003/0 would be diverted south of its existing alignment leading to an increase of approximately 630m compared to its existing alignment. E-243/004/0 would be diverted north leading to an increase of approximately 605m compared to its existing alignment. Both would cross the work area at grade.

8.6.18 Users of the footpaths within the site boundary would experience extensive views of the construction works, outlined in **Chapter 6** of this volume, including earthworks associated with the construction of the proposed development, which would be in cutting in the vicinity of these two public footpaths, and the construction of the proposed Foxburrow Wood footbridge and associated landscape works.

8.6.19 Outside of the site boundary, construction effects on the visual environment are likely to be less noticeable for users of E-243/003/0 as the footpath passes between woodlands at Foxburrow Wood and Farnham Hall. However, the visual environment of footpath E-243/004/0 in the fields adjacent to the site would be substantially altered during construction, due to the severing of the current footpath alignment by the proposed development, the presence of construction machinery required to construct both the proposed two village bypass in cutting and the embankments for the approaches to the Foxburrow Wood footbridge, and proposed planting along the bypass. This would truncate views when approaching the site from both the east and west.

8.6.20 Construction noise would alter the noise environment within and close to the site. Site clearance and set-up works, earthworks and excavations, and road construction, including vibrating and compaction rollers would be audible. Noise impacts on users would diminish with distance from the site. These would be for temporary periods and transitionary as people walk along the footpaths and through the site. Further details are outlined in **Appendix 8A** of this chapter and **Chapter 4** of this volume.

8.6.21 Some effects on air quality may arise from dust generated during construction of the proposed development, notably the earthworks associated with construction of the cutting slopes of the proposed two village bypass and the embankments of the proposed Foxburrow Wood footbridge, as well as exhaust emissions from additional vehicle movements. However, these effects would be negligible with the implementation of dust management measures and therefore would not have any significant adverse effects on users of the footpaths. Further details are provided in **Chapter 5** of this volume of the **ES**.

8.6.22 These changes to the environment for users of both E-243/003/0 and E-243/004/0 would affect their recreational amenity, including their perception of tranquillity. The overall impacts would be of large-medium scale; short-term duration and would affect an intermediate extent of the PRoW. The impact on users would be of medium magnitude and taking into consideration the medium sensitivity of PRoW users, would result in a moderate adverse effect which is **significant**.

Footpaths E-137/028/0, E-137/029/0 and E-243/001/0

8.6.23 Footpaths E-137/028/0 and E-137/029/0 run across or along the edges of arable fields, with views of farmland, trees, hedgerows, buildings and, from some locations, moving traffic. Noise from traffic on the A12 and A1094 (Friday Street) is audible. Footpath E-243/001/0 is further from A roads than the other footpaths and has more rural views, and the noise environment is quiet and dominated by natural sounds.

8.6.24 During construction of the proposed development, Footpaths E-137/028/0, E-137/029/0 and E-243/001/0 would remain on their existing alignments. In the case of E-137/029/0 and E-243/001/0, this would be until the permanent diversions of the public footpaths are available.

8.6.25 The visual environment for users of these footpaths in the fields adjacent to the site would be substantially altered during construction due to the presence of construction activity related to the proposed development and, in the case of E-137/029/0, the introduction of a temporary contractor compound immediately adjacent to the PRoW. Refer to **Chapter 6** of this volume for further details.

8.6.26 The noise environment around Footpaths E-237/028/0 and E-137/029/0 is already impacted by traffic on the A12 and A1094 (Friday Street). Noise from site clearance and set-up works, earthworks and excavations, and road construction would change the noise environment near to these two PRoW at times during the construction period. Construction noise would also be clearly audible along E-243/001/0, within an area that is currently quiet and dominated by natural sounds. Noise impacts on users would diminish with distance from the site. These changes would be for temporary periods and transitionary as people walk along the footpaths and through site. Further details are outlined in **Appendix 8A** of this chapter and **Chapter 4** of this volume of the **ES**.

8.6.27 Effects due to changes in air quality would be negligible with the implementation of dust management measures. Refer to **Chapter 5** of this volume for further details.

8.6.28 An increase in traffic on the A12 during the early years of construction would adversely affect receptors where Footpath E-137/029/0 ends at the A12 and walkers would cross the carriageway to reach a footway on the opposite side. This would be in the context of existing high traffic movements on the A12. Further details are provided in **Volume 2, Chapter 10** of the **ES**.

8.6.29 These changes to the environment of users of Footpaths E-137/028/0, E-137/029/0 and E-243/001/0 would affect their recreational amenity, including their perception of tranquillity. Overall the impacts would be of

large-medium scale, short-term duration and would affect an intermediate extent of the PRoW. The impact on users would be of medium magnitude and taking into consideration the medium sensitivity of PRoW users, would result in a moderate adverse effect which is **significant**.

Footpaths forming part of circular network to east of Farnham (E-137/030/0, E-137/031/0, E/243/005/0, E-243/006/0, E/243/007/0, E/243/008/0, E-243/009/0, E-243/010/0, E-243/011/0)

8.6.30 These footpaths run through the rural landscape, across or along the edges of arable fields and through woodlands, with views of farmland, trees, hedgerows, buildings and, from some locations, moving traffic. Noise from traffic on the A12 and A1094 (Friday Street) is audible, particularly from the western and northern footpaths.

8.6.31 The diversion of E-243/003/0 and E-243/004/0 (which these footpaths connect to leading to Farnham) would have an impact on the wider usability of the circular network during the construction phase, due to the disruption to the network of PRoW and the length of the diversions.

8.6.32 The visual environment of users of footpaths E-243/006/0, E-243/007/0 and E-243/008/0 in the fields adjacent to the proposed development would be altered during construction due to the presence of construction activity associated with the proposed development. Further details are provided in **Chapter 6** of this volume of the **ES**.

8.6.33 Site clearance and set-up works, earthworks and excavations, and road construction would be audible from most of these footpaths, and particularly for users of E-243/006/0 which runs through the site. Footpaths E-137/030/0, E-137/031/0 and E/243/005/0 are already influenced by road noise and the change to the noise environment due to construction activity would not be so great. Noise impacts on users would diminish with distance from the site. These changes would be for temporary periods and transitionary as people walk along the footpaths and through site. Further details are provided in **Appendix 8A** of this chapter and **Chapter 4** of this volume of the **ES**.

8.6.34 The visual and noise impacts of the road construction would be less for users of E-137/030/0, E-137/031/0, E-243/005/0, E-243/009/0, E-243/010/0 and E-243/011/0, in comparison to users of E-243/006/0 and E-243/007/0, due to screening provided by existing vegetation, topography, increasing distance from the proposed development and, in the case of E-137/030/0, E-137/031/0 and E-243/005/0 higher levels of existing traffic noise on the A12.

8.6.35 Effects due to changes in air quality would be negligible with the implementation of dust management measures. Refer to **Chapter 5** of this volume of the **ES** for further details.

8.6.36 Increase in traffic on the A12 during the early years of construction would adversely affect receptors where Footpaths E-137/029/0 and E-137/031/0 end at the A12, and walkers would cross the carriageway to reach footways on the opposite side. This would be in the context of existing high traffic movements on the A12.

8.6.37 These changes to the environment of users would affect their recreational amenity, including their perception of tranquillity. Overall the impacts would be of medium-small scale, short-term duration and would affect a localised extent of the group of PRoW. The impact on users would be of low magnitude and taking into consideration the medium sensitivity of PRoW users, would result in a minor adverse effect considered to be **not significant.**

Footpaths E-243/002/0 and E-374/009/0 to the south of the proposed development

8.6.38 These footpaths run across the Alde valley with attractive rural views. The noise environment is quiet and dominated by natural sounds.

8.6.39 The Landscape and Visual Assessment indicates that due to existing screening, topography and distance between the site and users of these PRoW, the proposed development would be visible from some locations on these footpaths, but it would only cause a minor alteration to views. Further details are provided in **Chapter 6** of this volume of the **ES**.

8.6.40 Distant construction noise might be audible at times but it would not affect recreational amenity. There would be no changes to air quality. **Chapters 4** and **5** of this volume provide further details.

8.6.41 Overall impacts would be of negligible scale. Effects on the amenity of users of these resources would be negligible neutral and considered to be **not significant**.

Sustrans Regional Cycle Route 41/Suffolk Coastal Cycle Route

8.6.42 This cycle route runs north along Tinker Brook, a minor road, through a rural landscape with views eastwards across the rural Alde valley towards the site. As it approaches the A12 views of and noise from the road and existing traffic increase. After crossing the A12, the cycle route continues along minor roads through a rural landscape.

8.6.43 Views would be noticeably changed from locations where there are more open views down into the valley of the River Alde. Construction of road embankments and the bridge over the river would be visible. Further details are provided in **Chapter 6** of this volume of the **ES**.

8.6.44 The sections of cycle route approaching and adjoining the A12 are already impacted by traffic noise and this would limit noise impacts from the proposed construction activity.

8.6.45 Air quality impacts would be negligible. Refer to **Chapter 5** of this volume for further details.

8.6.46 Increase in traffic on the A12 during the early years of construction would adversely affect receptors where Sustrans Regional Cycle Route 41/Suffolk Coastal Cycle Route crosses the carriageway. This would be in the context of existing high traffic movements on the A12. Further details are provided in **Volume 2, Chapter 10** of the **ES**.

8.6.47 Overall the impacts on the cyclists using these cycle routes would be of small-negligible scale, short-term duration and would affect a limited extent of the cycle routes. These impacts would be of very low magnitude and, taking into account the medium sensitivity of users, would result in a minor adverse effect considered to be **not significant**.

iii. Inter-relationship effects

8.6.48 The Amenity and Recreation Assessment of construction effects of the proposed development has inherently considered the impacts due to changes in views, noise, lighting, air and traffic on receptors, and no further inter-relationship effects have been identified.

c) Operation

i. Introduction

8.6.49 With the exception of temporary contractor compounds and temporary footpath diversions, works undertaken at construction stage would become permanent. This includes the route of the proposed two village bypass and associated infrastructure and landscaping, including drainage infiltration ponds, road surfaces, kerbs, footways, paved areas, fencing, traffic signs, road lighting and bridges.

8.6.50 The principal components of the operational phase likely to result in impacts on the amenity and recreation receptors are considered to be:

- noise from vehicles using the two village bypass and additional traffic on adjacent roads due to the Sizewell C Project;

- views of the two village bypass and moving vehicles;
- lighting at the roundabouts where the two village bypass meets the B1122, and lights from vehicles;
- disturbance by moving vehicles where PRoW cross the carriageway of the two village bypass; and
- beneficial impacts where traffic volume reduces on the B1122 due to traffic being diverted onto the two village bypass.

8.6.51 As set out in **Chapter 2** of this volume of the **ES**, during the peak years of construction and during the operational phase of the main development site, there would be in the region of:

- 22,200 to 22,450 vehicle movements per day on the two village bypass; and
- a 99% reduction in traffic movement on the section of the existing A12 that would be bypassed by the two village bypass.

8.6.52 During the construction phase of the main development site there would be an increase in vehicles due to the Sizewell C Project on sections of the A12 which would not be bypassed by the two village bypass, but there would be little change in traffic levels on these sections of the A12 during the operational phase of the main development site.

8.6.53 It is unlikely that the proposed development would lead to increases in people using resources during operation to the extent that they would contribute to effects on amenity and recreation including tranquillity. Increases in people is therefore not considered in assessing effects of the proposed development during operation.

Tranquillity

8.6.54 As described in **section 8.3** of this chapter, changes to noise, views, air quality, traffic and people are used to inform the effects on tranquillity experienced by recreational receptors. The effects on tranquillity is one of the factors used to inform the overall assessment of effects on amenity and recreation receptors. For the operational phase of the two village bypass, after completion of construction of the main development site, a more detailed assessment of effects on tranquillity is undertaken than for the construction phase, informed by a detailed assessment of potential changes to noise using the natural tranquillity method described in **section 8.3** and presented in **Appendix 8A** of this chapter. This is intended to give

a more detailed understanding of the permanent effects of the proposed development on tranquillity experienced by recreational receptors. During the peak of construction of the main development site there would be a greater volume of heavy duty vehicles (HDVs), which include HGVs and buses, using the two village bypass than there would be after completion of construction, due to the presence of traffic associated with the construction of the main development site, and noise levels would be a little higher than after completion of construction. However, the difference is not likely to change the tranquillity levels within this assessment.

8.6.55 The results of the natural tranquillity method are presented in **Appendix 8A** and on **Figure 8.2** of this chapter. It can be seen that existing tranquillity due to noise is generally good or fairly tranquil away from the A12, but is busy / noisy on or very close to the A12. It can also be seen that tranquillity due to noise would reduce as a result of the operational road in areas south of the A12 due to traffic on the two village bypass, but would increase at survey locations very close to the A12 and, in some instances, north of the A12 due to the reduction in traffic on the existing road.

ii. Effects on recreational routes

Footpaths E-243/003/0 and E-243/004/0

8.6.56 These footpaths currently pass through a rural landscape with views predominantly of fields, trees, woodlands, and natural sounds dominating. They appear to be well-used, providing attractive walks from the Farnham. Noise from traffic on the A12 at the western end of E-243/004/0 is loud.

8.6.57 During the operational phase of the proposed development, both Footpaths E-243/003/0 and E-243/004/0 would be permanently diverted over the proposed Foxburrow Wood footbridge. The alignment of the PRoW would be less direct for users as a result, increasing the length of the PRoW. The diversion of E-243/003/0 would result in an increase in approximately 155m compared to its existing alignment. The diversion of E-243/004/0 would result in an increase in approximately 355m compared to its existing alignment. However, safe and continuous footpath connectivity across the route of the proposed two village bypass would be maintained, and new connections between the Footpaths E-243/003/0 and E-243/004/0 would be created providing new options for circular routes.

8.6.58 Effects on air quality would be **not significant**. Refer to **Chapter 5** of this volume for further details.

8.6.59 Views would be substantially changed due to the presence of the non-motorised user bridge over the proposed road and views of the road and moving traffic while crossing the bridge. Further details are provided in **Chapter 6** of this volume of the **ES**. Further away from the proposed

development, the intervening embankments of the proposed Foxburrow Wood footbridge would truncate views when approaching the road from both the east and west. The bridge embankments, the road being in a cutting, and both existing and proposed screening vegetation would limit the visual impacts of the proposed development by hiding the road and moving traffic from views approaching the road; these effects would reduce over time as the proposed woodland and hedgerows mature.

8.6.60 The embankments and the road being in a cutting would also help to reduce noise impacts from further afield.

8.6.61 The existing tranquillity following the method in **section 8.3** of this chapter and using descriptions in column C of **Table 8.4** is as follows. Tranquillity on Footpath E-243/003/0 is good with natural sounds and views predominating, although distant road traffic is sometimes audible. Tranquillity on Footpath E-243/004/0 is fairly tranquil with natural sounds and views present for the majority of the route. However, where E-243/004/0 meets the minor road near the A12, the road traffic noise is louder and development more visible, and existing tranquillity is not tranquil.

8.6.62 Tranquillity would reduce on some sections of these footpaths due to the increase in traffic noise and views of the proposed development including moving traffic. Vehicle lights would affect tranquillity at night although the footpaths are likely to have limited use when it is dark. These effects would be greatest where the footpaths cross the new footbridge over the bypass, where tranquillity would reduce to not tranquil. Away from the footbridge crossing, E-243/003/0 would experience the greatest reduction in tranquillity where traffic noise would affect the full length of the footpath. E-243/004/0 would be less affected due to existing traffic noise being more audible resulting in less change to the noise environment. Where E-243/004/0 meets the existing minor road in Farnham, tranquillity would improve from not tranquil to fairly tranquil due to the reduction of traffic on the A12 and associated noise.

8.6.63 These changes to the environment for users of both E-243/003/0 and E-243/004/0 would affect their recreational amenity, including their perception of tranquillity. The permanent effects would be of medium-small scale, intermediate extent and would be of medium-low magnitude. Taking into consideration the medium sensitivity of PRoW users, this would result in a moderate-minor adverse effect considered to be **not significant**.

Footpaths E-137/028/0, E-137/029/0 and E-243/001/0

8.6.64 Footpaths E-137/028/0 and E-137/029/0 run across or along the edges of arable fields, with views of farmland, trees, hedgerows, buildings and, from some locations, moving traffic. Noise from traffic on the A12 and A1094

(Friday Street) is audible. Footpath E-243/001/0 is further from A roads and has more rural views and the noise environment dominated by natural sounds.

8.6.65 During the operational phase of the proposed development, the current alignments of Footpaths E-137/029/0 and E-243/001/0 would be permanently diverted from their current alignment to allow the routes to cross the proposed two village bypass at a safe location. The diversion of E-137/029/0 would result in an increase of approximately 25m, and the diversion of E-243/001/0 would result in an increase of approximately 35m. These reinstated PRoW would cross the proposed development at grade. Footpath E-137/028/0 would be remain on its existing alignment and would not cross the proposed bypass.

8.6.66 Users of Footpaths E-137/029/0 and E-243/001/0 would experience disturbance due to traffic movements where they cross the two village bypass at grade. **Chapter 10, Volume 2** concludes that users of these footpaths would experience significant adverse effects on severance and pedestrian delay. Recreational amenity would be adversely affected and there would be delays while waiting for gaps in traffic before crossing the two village bypass.

8.6.67 A substantial reduction in traffic on the existing A12 due to traffic being diverted onto the two village bypass would beneficially affect receptors where Footpath E-137/029/0 ends at the A12 and walkers would cross the carriageway to reach the footway on the opposite side.

8.6.68 Views of users of Footpaths E-137/029/0 and E-243/001/0 would be substantially altered where they cross the two village bypass. Visual impacts would be experienced by users of Footpaths E-137/028/0 and E-137/029/0 due to views of the new A12 roundabout including highway lighting. The partial screening effect of landform and woodland south of Farnham, together with proposed planting along the route of the proposed two village bypass, would help to reduce visual impacts on users of the E-243/001/0. Further details are provided in **Chapter 6** of this volume of the **ES**.

8.6.69 Effects on air quality would be **not significant.** Refer to **Chapter 5** of this volume of the **ES** for further details.

8.6.70 The existing tranquillity following the method in **section 8.3** and using descriptions in column C of **Table 8.4** of this chapter is as follows. Tranquillity on Footpath E-137/028/0 is neutral, with traffic audible and visible. Tranquillity on western end of Footpath E-137/029/0 is currently not tranquil due to sound from and views of existing traffic on the A12, becoming good away from the road as traffic noise reduces and natural

sounds and views predominate. Tranquillity on Footpath E-243/001/0 is good with natural sounds and views predominating.

8.6.71 Tranquillity would reduce on some sections of these footpaths due to the increase in traffic noise and views of the proposed development including moving traffic. Lighting from light columns on the roundabouts with the A12 and from vehicles would affect tranquillity at night although the footpaths are likely to have limited use when it is dark. These effects would be greatest where Footpaths E-137/029/0 and E-243/001/0 cross the bypass, where tranquillity would reduce to not tranquil. Away from the crossings, E-243/001/0 would experience the greatest reduction in tranquillity where traffic noise would affect users of the footpath for a wider extent within an existing quiet and tranquil landscape. E-137/029/0 would be less affected due to existing traffic noise being more audible. Where E-137/029/0 meets the existing A12, tranquillity would improve from not tranquil to neutral due to the reduction of traffic on the A12. Tranquillity on Footpath E-137/028/0 would reduce from neutral to not tranquil due to the increase in traffic noise and views of the proposed development including moving traffic and lighting.

8.6.72 These changes to the environment for users of these footpaths would affect their recreational amenity, including their perception of tranquillity.

8.6.73 The permanent effects on users of Footpaths E-137/029/0 and E-243/001/0 would be of medium scale, localised extent and of medium magnitude. Taking into consideration the medium sensitivity of PRoW users, would result in a moderate adverse effect considered to be **significant**.

8.6.74 The permanent effects on users of Footpath E-137/028/0 would be of negligible scale. Effects on the amenity of users of Footpath E-137/028/0 would be negligible neutral and considered to be **not significant**.

Footpaths forming part of circular network to east of Farnham (E-137/030/0, E-137/031/0, E/243/005/0, E-243/006/0, E/243/007/0, E/243/008/0, E-243/009/0, E-243/010/0, E-243/011/0)

8.6.75 These footpaths run through the rural landscape, across or along the edges of arable fields and through woodlands, with views of farmland, trees, hedgerows, buildings and, from some locations, moving traffic. Noise from traffic on the A12 and A1094 (Friday Street) is audible, particularly from the western and northern footpaths.

8.6.76 The visual environment for users of Footpaths E-243/006/0, E-243/007/0 and E-243/008/0 in the fields adjacent to the proposed development would be permanently altered during the operational phase, due to the visibility of the proposed development. Refer to **Chapter 6** of this volume for further details. The visual impacts on users of Footpaths E-137/030/0, E-

137/031/0, E-243/005/0, E-243/009/0, E-243/010/0 and E-243/011/0 would be less, in comparison to users of E-243/006/0 and E-243/007/0, due to screening provided by existing and proposed vegetation, topography and increasing distance from the proposed development.

8.6.77 Effects on air quality would be **not significant.** Refer to **Chapter 5** of this volume for further details.

8.6.78 A substantial reduction in traffic on the existing A12 due to traffic being diverted onto the two village bypass would beneficially affect receptors where Footpaths E-137/029/0 and E-137/031/0 end at the A12 and walkers would cross the carriageway to reach footways on the opposite side.

8.6.79 Although these footpaths would not cross the two village bypass, they connect to Footpaths E-243/003/0 and E-243/004/0 (which cross the two village bypass via a new footbridge), and E-137/029/0 (which crosses the two village bypass at grade) as part of circular walks from Farnham. Footpaths E-243/003/0 and E-243/004/0 are likely to be the most frequently used footpaths as they connect more directly to the village than Footpath E-137/029/0, and circular walks would be possible without having to cross the carriageway at grade by using Footpaths E-243/003/0 and E-243/004/0 via the Foxburrow Wood footbridge.

8.6.80 The existing tranquillity following the method in **section 8.3** and using descriptions in column C of **Table 8.4** of this chapter is as follows. Tranquillity on the footpaths west of the proposed development (E-137/030/0, E-137/031/0 and E-243/005/0) is affected by views of the A12, buildings and moving traffic, and traffic noise, and ranges from not tranquil close to the A12 to fairly tranquil in some locations further from the A12. Tranquillity on the footpaths east of the proposed development (E-243/006/0, E-243/007/0, E-243/009/0, E-243/010/0 and E-243/011/0) is fairly tranquil north of Palant's Grove with natural sounds and traffic noise both audible, and good further from the A12 to the east and south of Palant's Grove with natural views and sound predominating.

8.6.81 West of the proposed development, tranquillity would increase on sections of E-137/030/0 and E-137/031/0 closest to the A12 due to reduction in traffic on the A12. Tranquillity on the remainder of E-137/030/0 and E-137/031/0, and on E-243/005/0, would not change.

8.6.82 East of the proposed development (E-243/006/0, E-243/007/0, E-243/009/0, E-243/010/0 and E-243/011/0), tranquillity would reduce slightly due to views of the proposed development from the northern most paths, and an increase in traffic noise relative to natural sounds on the southernmost paths. North of Palant's Grove tranquillity would reduce from

fairly tranquil to neutral. East and south of Palant's Grove tranquillity would reduce from good to fairly tranquil.

8.6.83 These changes to the environment for users of these footpaths would affect their recreational amenity including their perception of tranquillity and the attractiveness of the wider circular network as an amenity resource. The permanent effects would be of small scale, localised extent and would be of low magnitude. Taking into consideration the medium sensitivity of PRoW users, these changes would result in a minor adverse effect considered to be **not significant**.

Footpaths E-243/002/0 and E-374/009/0 to the south of the proposed development

8.6.84 These footpaths run across the Alde valley with attractive rural views. The noise environment is quiet and dominated by natural sounds.

8.6.85 The Landscape and Visual Assessment indicates that due to existing screening, topography and distance between the construction site and users of these PRoW, the proposed development would be visible from some locations on these footpaths, but it would only cause a minor alteration to views. Refer to **Chapter 6** of this volume of the **ES** for further details.

8.6.86 Air quality impacts would be negligible. See **Chapter 5** of this volume of the **ES** for further details.

8.6.87 Tranquillity is generally good with natural views and sounds predominating. The proposed development would reduce this slightly (to fairly tranquil) due to a slight increase in road traffic noise in this quiet landscape, and distant views of the proposed development from some sections of footpath.

8.6.88 Overall impacts would be of negligible scale. Effects on the amenity of users of these resources would be negligible neutral and **not significant**.

Sustrans Regional Cycle Route 41/Suffolk Coastal Cycle Route

8.6.89 This cycle route runs north along Tinker Brook, a minor road, through a rural landscape with views eastwards across the Alde valley towards the site. As it approaches the A12, views of and noise from the road and existing traffic increase. After crossing the A12, the cycle route continues along minor roads through a rural landscape.

8.6.90 Views would be noticeably changed from locations where there are more open views down into the valley of the River Alde and the proposed overbridge and associated embankments would be visible. Refer to **Chapter 6** of this volume of the **ES**.

8.6.91 Air quality impacts would be negligible. Refer to **Chapter 5** of this volume of the **ES** for further details.

8.6.92 The sections of cycle route adjoining the A12 are already impacted by traffic noise and therefore any affects from the operational road and associated traffic are likely to be minimal. Further details are provided in **Appendix 8A** of this chapter and **Chapter 4** of this volume of the **ES**.

8.6.93 Tranquillity would only be affected slightly due to the change in views across the valley from Tinker Brook.

8.6.94 Increase in traffic on the A12 due to the Sizewell C Project would adversely affect receptors where Sustrans Regional Cycle Route 41/Suffolk Coastal Cycle Route crosses the carriageway. This would be in the context of existing high traffic movements on the A12. Further details are provided in **Volume 2, Chapter 10** of the **ES**.

8.6.95 Overall impacts would be of negligible scale. Effects on the amenity of users of the Suffolk Coastal Cycle Route and Regional Cycle Route 41 would be negligible neutral and considered to be **not significant**.

iii. Inter-relationship effects

8.6.96 The amenity and recreation assessment of the operational effects of the proposed development has inherently considered the impacts due to changes in views, noise, lighting, air quality and traffic on receptors. No further inter-relationship effects have been identified.

8.7 Mitigation and monitoring

8.7.1 Where possible, mitigation measures have been proposed where a significant effect is predicted to occur. Primary and tertiary mitigation measures which have been accounted for as part of the assessment are summarised in **section 8.5** of this chapter. Where other mitigation is required to reduce or avoid an adverse significant effect, this is referred to as secondary mitigation.

8.7.2 The assessment within this chapter has concluded that there are expected to be the following significant adverse effects during the construction phase:

- short-term moderate adverse effects on users of Footpaths E-243/003/0, E-243/004/0, E-137/028/0, E-137/029/0 and E-243/001/0.

8.7.3 The assessment within this chapter has concluded that there are expected to be the following significant adverse effects during the operational phase:

- Permanent moderate adverse effects on users of E-137/029/0 and E-243/001/0.

8.7.4 No further mitigation or monitoring measures are proposed to reduce or avoid significant effects for amenity and recreation receptors. Measures to keep all footpaths open and minimise effects due to changes in noise, air quality, views and traffic during construction and operation set out in **section 8.5** of this chapter are considered to provide a thorough plan of mitigation.

8.7.5 The only permanent residual significant impacts, once primary and tertiary mitigation has been taken into account, would be for the two public footpaths that cross the two village bypass at grade. Users of these PRoW would experience potentially significant effects due to the change in experience caused by traffic while crossing the two village bypass, and by noise and visual effects. Users of Footpath E-137/029/0 have the option of using the new footbridge to the south which would avoid crossing the two village bypass at grade.

8.7.6 It is considered that the proposed mitigation is appropriate and in accordance with paragraph 5.10.24 of National Policy Statement for Energy (EN-1) which states that "*The IPC should expect applicants to take appropriate mitigation measures to address adverse effects on … rights of way*".

8.8 Residual effects

8.8.1 **Table 8.5** and **Table 8.6** present a summary of the amenity and recreation impact assessment. These tables identify the receptor/s likely to be impacted, the level of effect and where the effect is deemed to be significant. The tables also include the mitigation proposed and the resulting residual effect.

Table 8.5: Summary of effects for the construction phase

Receptor	Impact	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
Footpaths E-243/003/0 and E-243/004/0	Temporary diversion to alternative routes. Short term impacts from construction noise and changes to views.	Diversion to provide continuous safe provision across the site. Best practice construction approach.	Moderate adverse (**significant**)	None proposed	Moderate adverse (**significant**)

Receptor	Impact	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
Footpaths E-137/028/0 E-137/029/0 and E-243/001/0	Short term impacts from construction noise and changes to views.	Best practice construction approach.	Moderate adverse (**significant**)	None proposed	Moderate adverse (**significant**)
Circular network of PRoW to east of Farnham E-137/030/0 E-137/031/0, E-243/005/0 E-243/006/0 E-243/007/0 E-243/008/0 E-243/009/0 E-243/010/0 E-243/011/0	Circular network impacted by temporary diversions to E-243/003/0 and E-243/004/0. Short term impacts from construction noise and changes to views.	Best practice construction approach.	Minor adverse (**not significant**)	None required	Minor adverse (**not significant**)
E-243/002/0 and E-374/009/0	Screening, topography and distance between the construction site and these receptors means that impact will be limited.	Best practice construction approach.	Negligible neutral (**not significant**)	None required	Negligible neutral (**not significant**)
Sustrans Regional Cycle Route 41/ Suffolk Coastal Cycle Route	Some visual impacts on receptors using the route close to proposed new junction with A12.	Best practice construction approach.	Minor adverse (**not significant**)	None required	Minor adverse (**not significant**)

Table 8.6: Summary of effects for the operational phase

Receptor	Impact	Primary or Tertiary Mitigation	Assessment of effects	Additional Mitigation	Residual Effects
Footpaths E-243/003/0 and E-243/004/0	Footpath diversions. The alignment of the footpaths would be less direct as a result.	The sinking of the route into a cutting and creation of embankments to mitigate views and noise. Crossing	Moderate-minor adverse (**not significant**)	None required	Moderate-minor adverse (**not significant**)

Receptor	Impact	Primary or Tertiary Mitigation	Assessment of effects	Additional Mitigation	Residual Effects
	Views. Noise. Tranquillity.	the road on new bridge avoiding the need to cross the carriageway. Hedgerow and tree planting			
Footpaths E-137/029/0 and E-243/001/0	Interaction with traffic - the footpaths would cross the new road at grade. Views. Noise. Tranquillity.	Hedgerow and tree planting.	Moderate adverse (**significant**)	None proposed	Moderate adverse (**significant**)
Footpath E-137/028/0	Views. Noise.	Hedgerow and tree planting.	Negligible neutral (**not significant**)	None required	Negligible neutral (**not significant**)
Circular network of PRoW to east of Farnham E-137/030/0 E-137/031/0, E-243/005/0, E-243/006/0, E-243/007/0, E-243/008/0, E-243/009/0, E-243/010/0, E-243/011/0	Circular network impacted by the permanent footpath diversions to E-243/003/0 and E-243/004/0 and the requirement for at grade road crossing for E-137/029/0. Views. Noise. Tranquillity.	Hedgerow and tree planting.	Minor adverse (**not significant**)	None required	Minor adverse (**not significant**)
E-243/002/0 and E-374/009/0	Screening, topography and distance between the construction site and these receptors means that visual impact	Hedgerow and tree planting.	Negligible (**not significant**)	None required	Negligible (**not significant**)

Receptor	Impact	Primary or Tertiary Mitigation	Assessment of effects	Additional Mitigation	Residual Effects
	will be limited. Noise and air quality impacts will be negligible.				
Sustrans Regional Cycle Route 41/ Suffolk Coastal Cycle Route	Views from closest to the proposed development.	Hedgerow and tree planting.	Negligible neutral (**not significant**)	None required	Negligible neutral (**not significant**)

References

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8.4 MHCLG (2019) Planning Practice Guidance – Natural Environment https://www.gov.uk/guidance/natural-environment [Accessed November 2019]

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8.11 SCC, SCDC (2014) Suffolk Access Principles for Sizewell C https://www.eastsuffolk.gov.uk/assets/Planning/Sizewell/Sizewell-C-Access-Principles.pdf [Accessed July 2019]

8.12 British Standard BS5228-1 Noise: 2009/2014 – Code of Practice for noise and vibration control at open construction sites – Noise