



# The Sizewell C Project

## 6.10 Volume 9 Rail Chapter 8 Amenity and Recreation

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## 8 Amenity and Recreation

### 8.1 Introduction

8.1.1 This chapter of **Volume 9** of the **Environmental Statement (ES)** (Doc Ref. 6.10) presents an assessment of the potential effects on amenity and recreation arising from the construction, operation and removal and reinstatement of proposals relating to rail.

8.1.2 The proposals considered in this volume are as follows:

- the part of the green rail route comprising a temporary rail extension of approximately 1.8km from the existing Saxmundham to Leiston branch line to the proposed B1122 (Abbey Road) level crossing (the 'proposed rail extension route') as shown on **Figure 2.1** of this volume; and
- Saxmundham to Leiston branch line upgrades (including track replacement and level crossing upgrades) (the 'proposed rail improvement works') as shown on **Figure 2.11** of this volume, (together the 'proposed development').

8.1.3 The proposed green rail route in its entirety comprises of a temporary rail extension of approximately 4.5km from the existing Saxmundham to Leiston branch line to a terminal within the main development site. The 2.7km part of the green rail route between the proposed B1122 (Abbey Road) level crossing and the terminal within the main development site is detailed in **Volume 2, Chapters 1 to 4** and assessed in **Volume 2** of the **ES** (Doc Ref. 6.3).

8.1.4 Detailed descriptions of the proposed development sites (referred to throughout as the 'site' as relevant to the location of the works), 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**.

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

8.1.6 This assessment has been informed by data from other assessments within the **ES** 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;
- **Chapter 9** of this volume: Terrestrial historic environment; and
- **Volume 2, Chapter 10**: Transport (Doc Ref. 6.3).

## 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 legislation, policy and guidance of specific relevance to the assessment of the proposed development.

### *Legislation and policy*

#### a) [International](#)

8.2.3 There is no international legislation or policy relevant to the amenity and recreation assessment.

#### b) [National](#)

8.2.4 This assessment has been prepared with due regard to the requirements of the Countryside and Rights of Way Act 2000 (Ref. 8.1).

8.2.5 The Overarching National Policy Statement for Energy (EN-1) (Ref. 8.2) and the National Policy Statement for Nuclear Power Generation (EN-6) (Ref. 8.3) set out requirements for amenity and recreation associated with the development of major energy infrastructures. Other relevant national policy documents, including the National Planning Policy Framework (NPPF) 2019 (Ref. 8.4), and Planning Practice Guidance (Ref. 8.5-8.8), set out legislation and guidance in relation to Open Access Land, PRoW, recreation within Areas of Outstanding Natural Beauty, protecting tranquil areas, the benefits of recreation to health and wellbeing, and light pollution. 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**

8.2.6 No regional policy is deemed relevant to the assessment for the proposed rail extension route and rail improvement works sites.

d) **Local**

8.2.7 **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. 8.9), and SCDC Final Draft Local Plan 2019 (Ref. 8.10), as relevant to the amenity and recreation assessment. No local policy over and above that described in **Volume 1, Appendix 6K** of the **ES** is deemed relevant to the assessment for this site.

e) **Guidance**

8.2.8 Relevant guidance is described in **Volume 1, Appendix 6K** of the **ES**, including the Suffolk Access Principles for Sizewell C (Ref. 8.11). Of specific relevance to this site the Suffolk Access Principles for Sizewell C state that *“Where any rail link bisects public rights of way, they should be retained on existing alignments as far as is possible with level crossings, suitably signed and constructed to a specification to be agreed, subject to confirmation of the expected number of trains per day, sight lines and train speeds, and that no trains will either be parked or expected to stop in a position which will obstruct the public right of way. The local authorities would consider diversions to nearby grade separated crossings if appropriate.”* Three PRow cross the alignment of the proposed development and would be diverted during the construction phase as described in **section 8.5** of this chapter.

8.2.9 Other relevant guidance relating to the amenity and recreation assessment include:

- Suffolk Green Access Strategy DRAFT – Rights of Way Improvement Plan (Ref. 8.12).

8.2.10 Details of this, as relevant to the amenity and recreation assessment, 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** (Doc Ref. 6.2).
- 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.
- 8.3.4 A screening exercise, as detailed below, has been undertaken for the upgrades on the level crossings on the Saxmundham to Leiston branch line which has reviewed the works proposed. Where the works are considered to have potential likely significant effects, these have been assessed. The scope considers the impacts of the upgrade works and operational use of the level crossings on the Saxmundham to Leiston branch line.
- 8.3.5 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, see **Volume 1, Appendix 6A** of the **ES**.
- 8.3.6 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**.
- 8.3.7 An 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.
- 8.3.8 This 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 or rail 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.

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

8.3.10 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

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

8.3.12 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 AONB Partnership, and the Suffolk Local Access Forum on 7 February 2019. The final agreed methodology report (including study areas) was issued to SCC, East Suffolk Council (ESC), Natural England, Suffolk Coast and Heaths AONB Partnership and Suffolk Local Access Forum on 24 June 2019. No further comments on the methodology or study area were received from consultees, and they were agreed. No other responses that only specifically relate to the proposed development were raised.

#### c) Environmental Screening

8.3.13 The proposed rail extension route has the potential to result in environmental effects which could be significant, and therefore these works have been considered in the environmental assessment.

8.3.14 An environmental screening exercise was undertaken in relation to the proposed improvement works to identify which of the level crossing upgrade works on the Saxmundham to Leiston branch line may give rise to environmental effects that could potentially be significant.

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8.3.15 **Figure 8.2** of this chapter shows the location of PRow in relation to the boundary of the proposed rail improvement works.

8.3.16 **Table 8.1** provides a summary of the environmental screening exercise, which concluded that all of the level crossing upgrade works except for those at Buckles Wood have been screened out of the amenity and recreation assessment as they are not likely to give rise to significant environmental effects.

**Table 8.1: Summary of environmental screening exercise.**

Proposed Level Crossing Improvement	Summary Of Potential Effects	Screened In Or Out Of The Assessment
Bratts Black House	This would affect a private access and would not lead to the closure or diversion of rights of way. Therefore, no effects are anticipated.	Screened out.
Knodishall	All works to upgrade the level crossing would be within the existing rail boundary. The satellite construction compound would be located in the field to the south west of the crossing and there would be works to the highway on the approach to the crossing, all of which is within the site boundary. The proposed works would affect a minor road connecting to Bridleway E-354/032/0. The proposed works would necessitate very short term temporary road closure and, during this time, recreational receptors would need to use alternative routes. The works would have limited effects on recreational receptors.	Screened out.
West House	All works to upgrade the level crossing would be within the existing rail boundary. The satellite construction compound would be located in the field to the south of the crossing and highway on the approach to the crossing, all of which is within the site boundary. The proposed works would affect a minor road connecting to Bridleway E-515/014/0. The proposed works would necessitate very short term temporary road closure and recreational receptors would need to use alternative routes. The works would have limited effects on recreational receptors.	Screened out.
Snowdens	This would affect a private access and would not lead to the closure, diversion or change of character of rights of way. Therefore, no effects are anticipated.	Screened out.
Saxmundham Road	All works to upgrade the level crossing would be within the existing rail boundary. The satellite construction compound would be located in the field to the north east of the crossing and there would be works to the highway on the approach to the crossing, all of which is within the site boundary. The Suffolk Coastal Cycle Route/Regional Cycle Route 42 cross the railway line at this location. The proposed works would necessitate very short term temporary road closure and, during this time, recreational receptors would need to use alternative routes. The works would have limited effects on recreational receptors.	Screened out.

Proposed Level Crossing Improvement	Summary Of Potential Effects	Screened In Or Out Of The Assessment
Buckles Wood	All works to upgrade the level crossing would be within the existing rail boundary. The proposed works would necessitate very short term temporary closure of Footpath E-363/003/0 and, during this time, recreational receptors would need to use alternative routes. Footpath E-363/003/0 continues north from the Saxmundum to Leiston branch line and crosses the site of the green rail route where it would be subject to longer term diversions during the construction, operation and removal and reinstatement phases. Effects on users of Footpath E-363/003/0 are assessed in <b>section 8.6</b> of this chapter.	Screened in.
Summerhill	All works to upgrade the level crossing would be within the existing rail boundary. The proposed works would necessitate very short term temporary closure of Footpath E-363/005/0 and recreational receptors would need to use alternative routes. The works would have limited effects on recreational receptors.	Screened out.
Leiston	All works to upgrade the level crossing would be within the existing rail boundary. There would be works to the highway on the approach to the crossing, all of which is within the site boundary. The only recreational receptors affected would be users of the highway. The works would have limited effects on recreational receptors.	Screened out.

**8.3.17** In addition, the track replacement on the Saxmundham to Leiston branch line would require renewal of the existing track using new ballast, rails and concrete sleepers. At this stage, it is assumed that these works would generally take place within both the site boundary and the existing rail boundary and would not lead to the closure, diversion or change of character of rights of way. Therefore, no effects are anticipated and the track upgrades beyond the level crossings identified in **Table 8.1** are also screened out of the amenity and recreation assessment.

**d) Study area**

**8.3.18** As the proposed rail improvement works (including track replacement and level crossing upgrades) have all been screened out from further assessment, the study area relates only to the proposed rail extension route within the site boundary and land immediately beyond to a distance of 1 kilometre (km) (refer to **Figure 8.1** of this chapter).

**8.3.19** The study area was informed by the description of the proposed rail extension route and proposed improvement works, supported by site visits and an understanding of potential effects due to changes in views, noise, air quality, as well as the potential changes to numbers of people using resources and physical changes to resources.

8.3.20 As noted above, the 1km study area was agreed with statutory consultees, and included in the 2019 EIA Scoping Report at **Volume 1, Appendix 6A** of the **ES**.

e) **Assessment scenarios**

8.3.21 The assessment of effects on amenity and recreation includes the assessment of the construction, operation and, where relevant, the removal and reinstatement phase of the proposed development, rather than specific assessment years.

8.3.22 For the operational phase the ‘worst-case’ visual effects are 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.

f) **Assessment criteria**

8.3.23 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 (e.g. PRoW) or receptors (e.g. people using a PRoW). Assessments broadly consider the magnitude of impacts and the sensitivity of resources/receptors that could be affected in order to classify effects.

8.3.24 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**

8.3.25 The assessment of sensitivity is based on the criteria summarised in **Table 8.2**. Sensitivity combines considerations of value and susceptibility and is assessed within the range of high, medium, low and very low.

**Table 8.2: Sensitivity assessment summary.**

Sensitivity	Description
High	Value: Receptors using a resource that is recognised at the national level for recreation or resources within landscapes (e.g. 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

Sensitivity	Description
	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.

**8.3.26** 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**

**8.3.27** 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, very low with consideration given to scale, duration and extent of impact with reference to the following criteria.

**8.3.28** 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.
- Negligible – very minor alteration to the ability to perform the amenity and recreation activity, or to the amenity and recreation experience.

**8.3.29** Duration of impact indicates the timescale over which it will be experienced. As the proposed rail extension route is not permanent and would be removed, and the site reinstated to agricultural use after approximately 9-12

years, there would be no permanent effects and only the following durations are relevant to this assessment:

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

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

- Limited – small part of a receptor area<sup>1</sup> (approximately 10%).
- Localised – part of receptor area (up to approximately 25%).
- Intermediate – around half of receptor area.
- Wide – more than half of receptor area.

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

**iii. Effect definitions**

**8.3.32** Following the assessment of the sensitivity of the receptors and the magnitude of impacts, effects are assessed by professional judgement with reference to the matrix shown in **Table 8.3**.

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<sup>1</sup> Defined as the area or length of the resource used by receptors. For example, the length of a PRoW.

**Table 8.3: 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

8.3.33 The definition of these effects is provided in **Table 8.4**.

**Table 8.4: 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.

8.3.34 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 scale and magnitude.

8.3.35 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, minor-negligible and negligible effects are considered to be not significant. However, professional judgement is also applied, where appropriate.

8.3.36 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 an effect and the decision regarding whether an effect is adverse, neutral or beneficial are entirely separate.

## g) Assessment methodology

8.3.37 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 further stages of 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 as provided in further detail in **Volume 10** of the **ES** (Doc Ref. 6.11).

## h) Assumptions and limitations

8.3.38 The following assumptions have been made in this assessment:

- It is assumed that the proposed rail extension route would be removed and the site reinstated to the current land uses at the end of the operational period. The proposed rail improvements works would be permanent.
- It is assumed that the PRoW that currently cross the proposed rail extension route would require diversion in accordance with the **Rights of Way and Access Strategy** in **Volume 2, Appendix 15I** of the **ES**, and the detailed Rights of Way plans in **Chapter 2 Appendix A2** of this volume. These diversions would be temporary, with the exception of the new PRoW from E-363/006/0 to the B1122 (Abbey Road), along the edge of properties on Abbey Road, which would remain as a permanent feature.

- It is assumed that the estimated growth rates indicated in the Landscape and Visual Assessment, provided in **Chapter 6** of this volume, for proposed planting would be achieved.
- It is assumed that the results of the SZC Visitor Surveys 2016-2018 (Public Rights of Way and Cycle Route), provided in **Volume 2, Appendix 15C** of the **ES**, remain valid and provide an accurate representation of the use of PRow in the vicinity of the proposed rail extension route.
- 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.

8.3.39 The following limitations have been identified:

- The noise and vibration assessment, provided in **Chapter 4** of this volume, identifies limitations in relation to noise from site compounds.

## 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 rail extension route. Recreational resources within the study area for the proposed rail extension route are illustrated on **Figure 8.1** of this chapter.

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

- Footpath E-363/003/0 connecting the B1119 (Saxmundham Road) to the south with Abbey Lane to the north via at grade crossings of the Saxmundham – Leiston branch line and Buckleswood Road;
- Footpath E-363/006/0 connecting Westward Ho/Buckleswood Road to the south with Aldhurst Farm and Abbey Lane to the north; and
- Footpath E-363/010/0 connecting the B1122 (Abbey Road) to the south with Leiston Abbey to the north.

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8.4.3 Eleven further footpaths registered as PRoWs are located outside of the site but within the study area.

- Footpath E-515/011/0 continues the line of E-363/010/0 north from Abbey Farm to re-join the B1122 (Abbey Road);
- Footpath E-515/012/0 links the B1122 (Abbey Road) to a minor road that gives access to Hill Farm and Abbey Lane to the south;
- several short footpaths provide access to the PRoW network to the north from the western edge of Leiston, either side of the B1119 (Waterloo Avenue) in the vicinity of Leiston Football Club, Leiston Middle School and St Margaret's Crescent. These short footpaths include:
  - Footpath E-363/005/0;
  - Footpath E-363/004/0;
  - Footpath E-363/008/0; and
  - Footpath E- 363/009/0.
- Footpath E-354/013/0 and Footpath E-363/001/0 follow a continuous east-west alignment that connects the B1119 (Saxmundham Road) at two points via an unnamed road forming part of the Suffolk Coastal Cycle Route;
- Footpath E-354/015/0 and Footpath E-363/002/0 connect the B1119 (Saxmundham Road) in the vicinity of Highbury Cottages with an unnamed road forming part of the Suffolk Coastal Cycle Route; and
- Footpath E-363/018/0 lies at the bottom of a shallow valley, connecting Carr Avenue in Leiston with Lover's Lane.

8.4.4 There are no long distance walking routes located within the site. However, the Sandlings Walk passes through the north-east of the study area. This route runs through Goose Hill and Kenton Hills in the north-east, before turning north to follow a bridleway and then a minor road towards Eastbridge.

8.4.5 There are no bridleways located within the site. However, there are two bridleways within the study area:

- Bridleway E-363/013/0, which commences opposite the site at the junction of the B1122 (Abbey Road) and Lover's Lane, and follows an alignment eastward along Lover's Lane; and
- Bridleway E-363/019/0, which follows the same alignment as the Sandlings Walk to the north-east of the site and continues further south along Lover's Lane.

**8.4.6** The Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route 42 run along Eastbridge Road from Eastbridge in the north-east, along the B1122 (Abbey Road), tracks past Leiston Abbey and Abbey Lane to the north and west of the site, then along a minor road to Knodishall in the south.

**8.4.7** Buckleswood Road runs through the site for approximately 400m. Though not a PRoW, it is a quiet lane crossed by Footpath E-363/003/0 and provides access onto the Suffolk Coastal Cycle Route to the west. There are several other local roads outside of the site but within the study area.

**8.4.8** Leiston Abbey, including the car park and ruined abbey managed by English Heritage, are located within the study area to the north of the site. Visits to Leiston Abbey are often made on foot via the PRoW network in the vicinity and visits are primarily for leisure and recreational purposes.

**8.4.9** There are some public open spaces and allotments within Leiston within the study area, but these are enclosed by urban development and would not be affected by the proposed rail extension route. There are no other amenity and recreation resources that could be potentially impacted by the proposed development.

**i. Visitor surveys**

**8.4.10** Surveys of people using the three PRoW that pass through the site (E-363/003/0, E-363/006/0 and E-363/010/0), and non-motorised users of the Suffolk Coastal Cycle Route and Regional Cycle Route 42 on Eastbridge Road were undertaken in August 2016 and November 2018, to gain an understanding on the frequency and type of use and to inform the amenity and recreation impact assessment. A combination of observation and questionnaire based visitor surveys were undertaken. The full results are presented in a **Volume 2, Appendix 15C** of the **ES**. A summary of the results is as follows.

**Observed usage**

**8.4.11** All the routes received low or extremely low levels of use by walkers, dog walkers and cyclists. Footpath E-363/010/0 averaged three people per hour

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(equating to 11,677 visits per year) and Eastbridge Road (the cycle route) averaged one person per hour (most of whom were cyclists). The other two PRow within the site averaged 0.6 people per hour. The PRow were all unsurfaced and muddy in the winter months. As a consequence, they could not easily be accessed by people in wheelchairs, mobility scooters or buggies and none such were observed. Eastbridge Road generated a steady stream of cars and farm vehicle traffic throughout the day, generally deterring walkers and dog walkers.

- 8.4.12 Levels of use in November 2016 were about half those in August 2018, with a total of 23 users recorded across E-363/003/0, E-363/006/0 and E-363/010/0 during week day surveys, and 18 users during weekend surveys in November 2016, compared to 24 users recorded during week day surveys and 56 users during weekend surveys in August 2018. Two walking groups were encountered on Footpath E-363/010/0, which forms part of a circular walk route between Theberton and Leiston, in addition to other users.
- 8.4.13 About a third of users were observed to be in the presence of one or more dogs.

#### Reported usage

- 8.4.14 Of the 87 people who completed a questionnaire, 47 (54%) came from Leiston and Saxmundham postcodes, a further 13 (15%) from the Woodbridge area, three from Southwold, one from Aldeburgh and the rest from further afield. Just over a quarter (24) were on holiday but a third of the holiday makers visited more than four times a year.
- 8.4.15 A total of 43 visitors (49%) expected their visit to last up to an hour and the rest expected it to last for longer. A total of 44 (51%) used their route at least weekly or more often, or all year round.
- 8.4.16 The responses made in relation to the ‘any other comments’ section of the questionnaire suggested that the cyclists would be able to find a number of alternative routes along local roads if they were diverted by the proposed development (and by the construction of the main development site). Local people from Leiston and the housing areas along Westward Ho and Saxmundham Road were concerned that they might not be able to use the existing railway line as part of their circular walks (people walk along the existing railway line even though it is not a PRow), or Buckleswood Road in wet weather.

#### b) Future baseline

- 8.4.17 There are two consented residential developments to the south of the site, on the edge of Leiston, as follows:

- application DC/16/1961/OUT for 187 dwellings at Johnsons Farm, between the Saxmundham to Leiston branch line and Saxmundham Road and immediately adjacent to the southern boundary of the site. This was consented in 2017 and a Reserved Matters application has recently been submitted to ESC. It is likely to include public open spaces, but it is uncertain when this development is likely to come forward; and
- application DC/16/2104/OUT for 77 dwellings located between the Saxmundham to Leiston branch line and St Margarets Crescent, 120m south-east of the site boundary. This was consented in 2017. It is likely to include public open spaces, but it is uncertain when this development is likely to come forward.

8.4.18 These two developments are not likely to materially alter the use of recreational and amenity resources considered within this chapter.

8.4.19 In addition, public access is to be proposed within areas of the habitat creation scheme at Aldhurst Farm. Effects on users of the Aldhurst Farm site are therefore considered within this assessment where relevant.

## 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 Sizewell C Project. 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 rail extension route 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.

8.5.3 For the amenity and recreation impact assessment the following primary and tertiary mitigation measures have been embedded into the design and construction management of the proposed rail extension route.

### a) Primary mitigation

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

8.5.5 Some primary mitigation measures that are described in the description of development in **Chapter 2** of this volume and the following technical chapters also apply to this chapter, and are summarised below:

- Noise and vibration, **Chapter 4** of this volume – the track of the proposed rail extension route would be made of continuous welded rail which would reduce noise generation from train movements.
- Air quality, **Chapter 5** of this volume – material on site would be reused to create landscape bunds, reducing the need to transport material for off-site storage.
- Landscape and visual amenity, **Chapter 6** of this volume – the retention of existing boundary vegetation, use of landscape bunds and a best practice approach to lighting to minimise light spill to reduce visual impacts.
- Terrestrial Historic Environment, **Chapter 9** of this volume – the retention of woodland, scrub and hedgerows wherever possible. The proposed rail extension route also follows a line downhill from a slight crest, limiting views of the proposed rail extension route from Leiston Abbey together with the landscape mitigation (bunding) which further reduces visibility from Leiston Abbey.

8.5.6 During the construction, operation, and removal and reinstatement stages of the proposed development, Footpath E-363/003/0, Footpath E-363/006/0 and Footpath E-363/010/0 would be subject to temporary diversions as seen in Rights of Way plans in **Chapter 2 Appendix A2** of this volume. These are intended to facilitate construction and operation of the proposed rail extension route while ensuring that users continue to have access to a safe, well connected PRow network. In all cases, diversions have been kept as short as possible to minimise disruption. The three PRow diversions proposed as primary mitigation are as follows - see **Rights of Way and Access Strategy** in **Volume 2, Appendix 15I** of the **ES** for further details:

- Footpath E-363/003/0 would be diverted east along the southern edge of the proposed rail extension route to Wood Farm, before continuing north-west over the new barrier-controlled level crossing on to Buckleswood Road. The level crossing barriers would be closed for up to six times per day, for intervals up to three minutes at a time, and would therefore be open to PRow users for the majority of the time. During construction of the Buckleswood Road level crossing, Buckleswood Road would also be temporarily diverted to enable the construction of the level crossing; for the duration of this diversion the

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footpath would follow the proposed temporary road alignment. It is assumed that at times during the construction process, the diversion of footpath E-363/003/0 would need to cross the diverted route of Buckleswood Road.

- During construction Footpaths E-363/003/0 would be closed for very short periods where it crosses the existing Saxmundham to Leiston branch line, during upgrades to the railway line. These closures would be kept to a minimum and users would need to find alternative routes during temporary closures.
- Footpath E-363/006/0 would be diverted east from its current alignment to connect with the B1122 (Abbey Road) south of the proposed rail extension route. The footpath would run north along a proposed off-road bridleway (the alignment of the diverted bridleway E-363/019/0) west of the B1122 (Abbey Road) for a short stretch, crossing the proposed rail extension route via a new automated level crossing on the B1122 (Abbey Road). The users of the PRow would be able to use the diversion with the exception of during times when the level crossing barriers would be closed, which would be up to six times per day, for intervals of up to three minutes at a time. North of the B1122 (Abbey Road) level crossing, the footpath would follow a new westbound alignment to the north of the proposed rail extension route, before re-joining its existing alignment north of Aldhurst Farm. The new east-west paths to the north and south of the proposed rail extension route would be at the base of landscape bunds, with the proposed rail extension route screened from view in a cutting until it emerges onto the B1122 (Abbey Road). The southern stretch of diverted footpath along the northern edge of properties along the B1122 (Abbey Road) would remain in place permanently. The other sections of this diversion would only be in place for the duration of the construction phase of the Sizewell C main development site, and would be removed during the removal and reinstatement phase of the rail extension route.
- Footpath E-363/010/0 would be diverted east from its current alignment, following the same diversion as Footpath E-363/006/0 onto the proposed off-road bridleway west of the B1122 (Abbey Road), across the B1122 (Abbey Road) level crossing, and west onto a new alignment north of the proposed rail extension route before re-joining its existing alignment north of the proposed railway cutting. The stretch of diverted footpath along the northern edge of properties along the B1122 (Abbey Road) would remain in place permanently.

### 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 of listed above in relation to primary mitigation would also apply to this chapter, including measures within the **Code of Construction Practice (CoCP)** (Doc Ref. 8.11) to minimise effects during the construction and removal and reinstatement phases. These include measures to minimise noise and dust impacts 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 Workforce 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 as seen 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 and removal and reinstatement phases include:
- selection of quiet plant and techniques in accordance with good practice in BS5228 (Ref. 8.11) 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; and
  - provision of training and instruction to construction site staff on methods and techniques of working to minimise off-site noise and vibration impacts.
- 8.5.11 Measures set out in **Chapter 5** of this volume to control dust during the construction and removal and reinstatement phases include:
- avoid direct site run-off of water or mud;
  - cover, seed or fence stockpiles to prevent wind whipping;

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- 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**.

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

- minimum light levels for safe working and the minimum number of lighting elements to illuminate the work area safely will be used;
- lighting will be directed to minimise nuisance to adjacent properties. If lights cannot be positioned in such way because of physical constraints or for safety reasons, then local screening of the lights, including shielding of luminaires, where appropriate, will be used to reduce light spill;
- task-specific lighting will be turned off on completion of the task, or at the end of the working day by the contractor;
- spotlights and task lighting towers will be positioned away from sensitive receptors, where identified; and
- contractors will consider the use of sensors or timing devices to automatically switch off lighting, where appropriate.

## 8.6 Assessment

### a) Introduction

8.6.1 This section presents the findings of the amenity and recreation impact assessment for the construction, operation and removal and reinstatement of the proposed rail extension route.

8.6.2 This section identifies the amenity and recreation receptors that would be affected by the proposed rail extension route, 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 required).

### 8.6.3

Given the nature of the proposed rail extension route, the primary and tertiary mitigation measures proposed and the assessment set out in **Chapters 4, 5 and 6** of this volume and **Volume 2, Chapter 10** of the **ES**, as referenced in **section 8.1** of this chapter, it is judged that the following resources would be affected:

- Footpath E-363/003/0 would be affected by a temporary, long-term diversion during the construction, operation, and removal and reinstatement phases of the proposed rail extension route, including the introduction of a new level crossing over the route on Buckleswood Road;
- Footpaths E-363/010/0 and E-363/006/0 would be affected by a temporary, long-term diversion during the construction, operation, and removal and reinstatement phases of the proposed rail extension route, including the introduction of a new level crossing over the route on the B1122 (Abbey Road);
- changes to the noise environment would be noticeable to users of Footpaths E-363/003/0, E-363/010/0 and E-363/006/0, and potentially users of the Suffolk Coastal Cycle Route/Sustrans Regional Cycle Route 42 and visitors to Leiston Abbey during the construction and removal and reinstatement phases due to the nature of construction activity, provided in **Chapter 4** of this volume;
- during operation, users of the routes within and immediately adjacent to the site would experience the sound of trains moving through the site up to six times per day for intervals of between two to three minutes at a time. Beyond the immediate vicinity of the site, the noise from operating trains would not be notably different from that generated by baseline traffic from surrounding road and rail routes, notably the B1122 (Abbey Road), Abbey Lane and the existing Saxmundham to Leiston branch line. None of the changes to the noise environment on amenity and recreation receptors would be significant, provided in **Chapter 4** of this volume;
- users of Footpaths E-363/003/0, E-363/010/0 and E-363/006/0, the Suffolk Coastal Cycle Route/Sustrans Regional Cycle Route 42 and visitors to Leiston Abbey would experience changes to views during the construction, operation and removal and reinstatement phases. Users of Footpaths E-363/003/0, E-363/010/0 and E-363/006/0 that cross the site would experience significant visual effects. Effects on

users of resources that do not cross the site would not be significant, provided in **Chapter 6** of this volume;

- negligible changes to air quality would occur during construction, operation and removal and reinstatement phases for users of the resources within and immediately adjacent to the site, provided in **Chapter 5** of this volume; and
- during construction of the proposed rail extension route, lighting may be required for certain periods during the hours of darkness, low levels of natural light or for specific construction methods or phases. Construction lighting would be designed, positioned and directed so as not to unnecessarily intrude on adjacent buildings, ecological receptors or habitat used by protected species, and to prevent unnecessary disturbance and interference with local residents, PRow users, and passing motorists. Once in operation, the proposed rail extension route would not be lit; however, lighting would be provided at both of the level crossings. During the construction phase there may be periods of time when construction lighting forms a notable change to the existing baseline at night. However, these changes would be temporary and short-term. As reported in the Landscape and Visual Assessment, provided in **Chapter 6** of this volume, lighting during the operational phase would form an overall minor change, as a result of the continuous lighting at the level crossing, given that there is currently lighting throughout Leiston and continuing along the B1112 (Abbey Road). However, lighting at the Buckleswood Road level crossing would introduce a localised element of artificial light along an unlit 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:

- Footpath E-363/003/0 which crosses the site near the western site boundary;
- Footpath E-363/010/0 which crosses the site in the vicinity of Aldhurst Farm and Abbey Lane close to the northern site boundary;
- Footpath E-363/006/0 which crosses the site close to the eastern site boundary in the vicinity of the B1122 (Abbey Road);
- Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route 42; and

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- visitors to Leiston Abbey.

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 rights of way and provide direct connections with the wider Rights of Way network and to the Suffolk Coastal Cycle Route. Footpaths E-363/006/0 and E-363/010/0 also provide direct access to Leiston Abbey, which is a destination for heritage, tourism and local walkers using the Rights of Way network. 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 Footpaths E-363/003/0, E-363/006/0 and E-363/019/0 is judged to be low, and susceptibility is judged to be high, with an overall medium sensitivity.

8.6.7 The Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route 42 passes through the Suffolk Coast and Heaths AONB within the vicinity of the site and is of high value and medium susceptibility, with an overall high to medium sensitivity.

8.6.8 Leiston Abbey is a scheduled monument and contains a number of individual listed buildings. The Abbey is a key visitor attraction in the local area, and allows views out onto the wider landscape from the accessible parts of the Abbey, although this is not the primary reason for visiting Leiston Abbey. It is judged to be of medium value and high susceptibility, indicating high to medium sensitivity.

b) **Construction**

i. **Introduction**

8.6.9 The impacts during construction would arise for approximately 12 to 18 months. It is anticipated that construction would start at the eastern end of the site closest to the Sizewell C main development site, before moving west towards Buckleswood Road. Due to the nature of construction and demolition 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.

8.6.10 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 heavy goods vehicles and equipment involved in the laying of new tracks;
- earthworks and excavation, including the clearance of vegetation, removal of soil, creation of a cutting and formation of landscape bunds on the north side of the proposed rail extension route and south side towards the eastern end. This is the mostly likely phase to affect air quality through the generation of dust;
- construction and installation of the track, level crossings and security fencing;
- the diversion of footpaths E-363/003/0, E-363/006/0 and E-363/010/0, including construction of the level crossing on the B1122 (Abbey Road) and level crossing on Buckleswood Road; and
- increase in traffic on local roads due to the Sizewell C Project.

**8.6.11** **Volume 2 Chapter 10** of the **ES** indicates that there would be an increase in vehicle movements on the B1122 and other roads adjacent to the green rail route during the early years of construction of the main development site; this has the potential to affect the experience of users of recreational resources.

**8.6.12** Daytime work would take place during Monday to Saturday 07:00 to 19:00. However, some activities may require 24 hour working and ESC would be notified in advance.

ii. [Effects on recreational receptors](#)

[Footpath E-363/003/0](#)

**8.6.13** During construction of the proposed rail extension route, Footpath E-363/003/0 would be diverted, as described in **section 8.5** of this chapter, leading to an increase in approximately 235m compared to its existing alignment. The proposed new alignment of the Footpath E-363/003/0 is less direct than the existing route. However, safe and continuous footpath connectivity across the site would be maintained.

**8.6.14** Footpath E-363/003/0 would be closed for very short periods where it crosses the existing Saxmundham to Leiston branch line, during upgrades to the railway line. These closures would be kept to a minimum and users would need to find alternative routes during temporary closures.

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- 8.6.15 Footpath E-363/003/0 joins Abbey Lane at its northern end and Saxmundum Road at its southern end. There would be an increase in traffic on Abbey Lane and Saxmundum Road due to the Sizewell C Project.
- 8.6.16 The most noticeable visual changes would occur between the existing Saxmundham to Leiston branch line and Buckleswood Road. Users of Footpath E-363/003/0 would experience views of the construction works and a contractor compound located between the existing footpath alignment and the proposed rail extension route.
- 8.6.17 Outside of the site, construction effects on the visual environment are likely to be less noticeable, although users of the footpath approaching the site from the south may experience some visibility of construction works when approaching the existing Saxmundham to Leiston branch line.
- 8.6.18 Construction noise would be audible within and in close proximity to the site, although this would not have a significant effect on users of Footpath E363-003/0.
- 8.6.19 Effects on air quality may arise from dust generated during the construction of the proposed rail extension route, notably the earthworks associated with construction of the cutting and embankments. However, these effects would be negligible.
- 8.6.20 Surveys of users of Footpath E-363/003/0 recorded a relatively small number of users, and it is not anticipated that the number of people using this route would increase, see **Volume 2, Appendix 15C** of the **ES**.
- 8.6.21 These changes to the environment for users of Footpath E-363/003/0 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 route. The impact on users would be of medium magnitude and taking into consideration the medium sensitivity of route users, would result in a moderate adverse effect (**significant**).

**Footpaths E-363/006/0 and E-363/010/0**

- 8.6.22 Users of Footpaths E-363/006/0 and E-363/010/0 would be affected by construction works, which would divert the footpaths onto their new alignment, running parallel to the proposed rail extension route, with a short section parallel to the B1122 (Abbey Road) and over the new level crossing. The diversion of Footpath E-363/006/0 would lead to an increase in approximately 930m compared to its existing alignment. The diversion of Footpath E-363/010/0 would lead to an increase in approximately 310m compared to its existing alignment. The proposed new alignments of the

footpaths are less direct than the existing routes. However, safe and continuous footpath connectivity across the site would be maintained.

- 8.6.23 Footpath E-363/006/0 joins Abbey Lane at its northern end and Westward Ho at its southern end. There would be an increase in traffic on Abbey Lane and Westward Ho due to the Sizewell C Project.
- 8.6.24 Users would experience a reduction in amenity where the footpath runs along the proposed new off-road bridleway parallel to the B1122 (Abbey Road), which is characterised by traffic movements and highways infrastructure. However, this is a short section of the overall route.
- 8.6.25 The visual environment in the northern part of the site would be substantially altered during construction due to the severing of the current footpath alignments by the proposed rail extension route and the introduction of landscape bunds up to two metres high. This would truncate views when approaching the site from both the north and south. The impact would be greatest during the early stages of construction, when the landscape bunds along the proposed rail extension route are being created and grass has yet to establish.
- 8.6.26 Views along the diverted sections of the footpaths connecting to the B1122 (Abbey Road) would be more enclosed as they would run parallel to the base of the landscape bunds. Users of the section of the footpaths along the new off-road bridleway parallel to the B1122 (Abbey Road) would see and hear road traffic, particularly during the early stages of construction when construction traffic on the road network would likely be at its greatest.
- 8.6.27 The existing noise environment along the northern section of the footpaths consists largely of natural sounds with occasional background noise from farming activities and traffic on the B1122 (Abbey Road). Construction noise would alter the soundscape within and close to the site, although it is unlikely that sound levels associated with construction of the proposed rail extension route would be significant.
- 8.6.28 Effects on air quality may arise from dust generated during construction of the proposed development, notably the earthworks associated with construction of the cutting and embankments. However, these effects would be negligible.
- 8.6.29 These changes to the environment of users of these footpaths 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 routes. The effects on users would be of medium magnitude and taking into consideration the medium sensitivity of route users, would result in a moderate adverse effect (**significant**).

### Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route 42

- 8.6.30 The Suffolk Coastal Cycle Route and Regional Cycle Route 42 run along Abbey Lane to the west and north of the site. The route would not be directly affected by construction works and it lies outside the site. Existing vegetation along Abbey Lane largely screens and filters views from the cycle route across to the site. While some visual effects may be observed during construction of the landscape bunds located between Aldhurst Farm and the B1122 (Abbey Road), these are unlikely to change the overall visual experience for users of the route.
- 8.6.31 Users of the Suffolk Coastal Cycle Route and Regional Cycle Route 42 may also be affected by changes in the noise and air quality environment associated with construction of the proposed rail extension route. However, air quality effects associated with construction of the proposed rail extension route would be negligible, and noise effects are not anticipated to be significant. Changes to the air quality and noise environment would be in the context of existing vehicle traffic that contributes to the noise and air quality environment along the route. The length of the Suffolk Coastal Cycle and Regional Cycle Route 42 route affected by the proposed rail extension route is a small proportion of the overall routes, and users are also likely to be passing along this stretch of route for a short time only.
- 8.6.32 There would be an increase in traffic due to the Sizewell C Project where the Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route 42 run along Abbey Lane. There would be an increase in traffic on the B1122 as a result of the Sizewell C Project, although the cycle route would run along a new off-road bridleway parallel to the B1122 (where it currently runs on the B1122) and controlled crossing points would be provided where it crosses the B1122 as part of the works for the main development site, minimising interaction with traffic. Effects of traffic on cyclists using the Suffolk Coastal Cycle Route and Regional Cycle Route 42 would be limited.
- 8.6.33 The overall impacts would be of negligible scale. Effects on the amenity of users of the Suffolk Coastal Cycle Route and Regional Cycle Route 42 would be negligible neutral (**not significant**).

### Leiston Abbey

- 8.6.34 **Chapter 9** of this volume sets out the assessment of the effects of the proposed development on the historic and archaeological interest of the Abbey. It concludes that while the perception of construction works to the south of the Abbey through changes to views, noise environment and the changed appearance of the Abbey in views from the approach from Leiston would lead to a discernible loss of historic interest for a limited period. It is

noted that the Abbey ruins would be subject less than substantial harm to the significance of the heritage asset, resulting in a **significant** effect.

8.6.35 The Landscape and Visual Assessment provided in **Chapter 6** of this volume, also indicates that views towards the proposed rail extension route from Leiston Abbey during construction would be relatively limited. Users of Footpath E-363/006/0 and Footpath E-363/010/0 would experience disruption associated with construction of the proposed rail extension route, as assessed above in relation to these two PRowS, which may affect access to the Abbey from the south. However, this disruption would be short-term, and access to the Abbey would still be possible from these footpaths, and also from the north and from the B1122 (Abbey Road) to the east.

8.6.36 The overall impacts would be of negligible scale. Effects on the amenity of visitors to Leiston Abbey would be negligible neutral (**not significant**).

iii. **Inter-relationship effects**

8.6.37 The amenity and recreation assessment of construction effects of the proposed rail extension route has inherently considered the impacts due to changes in views, noise, lighting, air quality and traffic on receptors, and no further inter-relationship effects have been identified.

c) **Operation**

i. **Introduction**

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

- increases in the distance that users of PRow would need to walk due to diversions;
- delays while trains are crossing the routes of PRow and level crossing barriers are down;
- noise from trains using the green rail route;
- views of the green rail route and moving trains; and
- increase in traffic on local roads due to the Sizewell C Project.

8.6.39 **Volume 2 Chapter 10** of the **ES** indicates that there would be an increase in vehicle movements on the B1122 and other roads adjacent to the green rail route during the peak years of construction of the main development site when the proposed development would be operational; this has the potential to affect the experience of users of recreational resources.

## ii. Effects on amenity and recreation receptors

### Footpath E-363/003/0

- 8.6.40 During the operational phase of the proposed rail extension route, the footpath diversion introduced at construction phase would continue as a long-term temporary diversion, leading to an increase in approximately 235m compared to its existing alignment. The alignment of the footpath would be less direct than the existing route. However, safe and continuous footpath connectivity across the site would be maintained.
- 8.6.41 Users may experience some impediment to their use of the footpath when the level crossing barriers are closed to allow trains to cross Buckleswood Road. However, barriers would only be closed for up to two to three minutes at a time, up to six times per day. The footpath is primarily a leisure route on which users are unlikely to be adversely affected by short delays to their journey.
- 8.6.42 Footpath E-363/003/0 joins Abbey Lane at its northern end and Saxmundum Road at its southern end. There would be an increase in traffic on Abbey Lane and Saxmundum Road due to the Sizewell C Project.
- 8.6.43 Effects due to changes in air quality would be negligible.
- 8.6.44 Visual effects would be limited to the introduction of the proposed rail extension route, including the new level crossing on Buckleswood Road and associated barriers and lighting columns.
- 8.6.45 The only noise effects are likely to be generated by trains using the proposed rail extension route. However, trains would only travel at a maximum speed of 25mph and be limited to six movements per day through the site. It is proposed that there would be five movements to and from the Sizewell C main development site overnight (23.00–06.00) and one movement during the day outside of these hours.
- 8.6.46 These changes to the environment for users of this footpath would affect their recreational amenity, including their perception of tranquillity. The overall impacts would be of medium-small scale; medium-term duration and would affect an intermediate extent of the route. These impacts would be of medium-low magnitude and taking into consideration the medium sensitivity of route users, would result in a moderate-minor adverse effect **(not significant)**.

### Footpaths E-363/006/0 and E-363/010/0

- 8.6.47 During the operational phase of the proposed development, the footpath diversions introduced at construction phase would continue as long-term

temporary diversions. The diversion of Footpath E-363/006/0 would lead to an increase in approximately 930m compared to its existing alignment. The diversion of Footpath E-363/010/0 would lead to an increase in approximately 310m compared to its existing alignment. The alignment of the footpaths would be less direct than the existing route. However, safe and continuous footpath provision across the site would be maintained.

- 8.6.48 Users may experience some impediment to their use of the footpaths when the level crossing barriers are closed to allow trains to cross the B1122 (Abbey Road). However, barriers would only be closed for approximately between two to three minutes at a time, up to six times per day. The footpath is primarily a leisure route on which users are unlikely to be adversely affected by short delays to their journey.
- 8.6.49 Footpath E-363/006/0 joins Abbey Lane at its northern end and Westward Ho at its southern end. There would be an increase in traffic on Abbey Lane and Westward Ho due to the Sizewell C Project.
- 8.6.50 Users would experience a reduction in amenity where the footpath runs along the proposed new off-road bridleway parallel to the B1122 (Abbey Road), which is characterised by traffic movements and highways infrastructure. However, this is a short section of the overall route.
- 8.6.51 Effects due to changes in air quality would be negligible.
- 8.6.52 Visual effects would primarily arise from the presence of the landscape bunds, up to two high between the Saxmundham to Leiston branch line and Buckleswood Road, and between Buckleswood Road and the B1122 (Abbey Road). However, once the seeding of these landscape bunds is established the outlook from the footpaths would remain green and relatively tranquil, albeit more enclosed than the current alignment.
- 8.6.53 Traffic on the B1122 (Abbey Road) would be audible from the diversion parallel to the B1122. Noise effects as a result of the operation of the proposed rail extension route would occur due to movements of trains along the line and potential noise from audible alarms to warn pedestrians when barriers are to be lowered at the proposed crossings. However, trains would travel at a maximum speed of 25mph, and there would only be up to six movements per day, five of which would be overnight (23.00–06.00).
- 8.6.54 These changes to the environment of users of Footpaths E-363/006/0 and E-363/010/0 would affect their recreational amenity, including their perception of relative tranquillity. The overall impacts would be of medium-small scale; medium-term duration and would affect an intermediate extent of the routes. The impact would be of medium-low magnitude and taking into consideration the medium sensitivity of route users, would result in a moderate-minor adverse effect **(not significant)**.

### Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route 42

- 8.6.55 There would be an increase in traffic due to the Sizewell C Project where the Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route 42 run along Abbey Lane. There would be an increase in traffic on the B1122 as a result of the Sizewell C Project, although the cycle route would run along a new off-road bridleway parallel to the B1122 (where it currently runs on the B1122) and controlled crossing points would be provided where it crosses the B1122 as part of the works for the main development site, minimising interaction with traffic. Effects of traffic on cyclists using the Suffolk Coastal Cycle Route and Regional Cycle Route 42 would be limited.
- 8.6.56 Negligible impacts due to noise are considered likely at the operation stage. While the proposed bund up to two metres high to the north of the proposed rail extension route may be visible through existing vegetation along the eastern extent of Abbey Lane, this is unlikely to cause visual impacts due to existing screening and because cyclists would be focussed on the road ahead.
- 8.6.57 The overall impacts would be of negligible scale. Effects on the amenity of users of the Suffolk Coastal Cycle Route and Regional Cycle Route 42 would be negligible neutral (**not significant**).

### Leiston Abbey

- 8.6.58 The effects of the proposed development during operation on the historic and archaeological interest of the scheduled monument at Leiston Abbey are set out in **Chapter 9** of this volume. While the majority of assets within the Leiston Abbey complex would not be subject to significant effects, it is noted that the change to the setting of the complex in the southern part of the Abbey ruins, as a result of the clearest visibility of and greatest noise from the proposed development, would have less than substantial harm to the significance of the heritage asset, resulting in a **significant** effect.
- 8.6.59 **Chapter 9** of this volume also notes that there are a number of locations within the Abbey where changes would not be readily perceptible to visitors, and that the parts of the Abbey that would be most affected by the changes are already subject to higher noise levels from the B1122 (Abbey Road).
- 8.6.60 The Landscape and Visual Assessment, provided in **Chapter 6** of this volume, also indicates that views towards the proposed rail extension route from Leiston Abbey during operation would be relatively limited. The overall impacts would be of negligible scale. Effects on the amenity of visitors to Leiston Abbey would be negligible neutral (**not significant**).

i. Inter-relationship effects

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

d) Removal and reinstatement

8.6.62 As described in **Chapter 2** of this volume, following the completion of the construction of the Sizewell C Project, the proposed rail extension route, including the track bed and level crossings, would be removed and returned to its original topography. It is anticipated that removal and site reinstatement would follow a programme broadly the reverse of construction and involve the movement of demolition plant and vehicles, storage of materials, task lighting and gradual transformation of the site to remove the proposed rail extension route and level crossings (but not the junction between the realigned Lover's Lane and the B1122 (Abbey Road)) and return the site to existing use. The proposed rail improvement works and the proposed new PRow (footpath) from E-363/006/0 to the B1122 (Abbey Road), along the edge of properties on Abbey Road would remain as permanent features.

8.6.63 The impacts during removal and reinstatement would arise for approximately five months. The nature and duration of the works would be similar to the construction phase as the site infrastructure is removed and the stored soil reinstated to return the site to agricultural use.

8.6.64 The judgements relating to the significance of effects on amenity and recreation resources during the removal and reinstatement phase are assessed to be the same as for the construction phase. No significant effects on amenity and recreation receptors are anticipated during the removal and reinstatement phase.

8.6.65 Footpaths E-363/003/0, E-363/006/0 and E-363/010/0 would be retained on their diversions during the removal and reinstatement phase, along the same alignments used during the construction and operational phases. Towards the end of the removal and reinstatement stages they would be returned to their existing alignments.

8.6.66 For users of Footpath E-363/003/0, there would be an increase in the length of the route by approximately 235m compared to its existing alignment, and changes to views and to noise due to the removal and reinstatement works. Impacts would be of large-medium scale; short-term duration and would affect an intermediate extent of the route. The impact on users would be of medium magnitude and taking into consideration the

medium sensitivity of route users, would result in a moderate adverse effect **(significant)**.

8.6.67 For users of Footpath E-363/006/0 and E-363/010/0, there would be an increase in the length of the routes and changes to views and to noise due to the removal and reinstatement works. The diversion of Footpath E-363/006/0 would lead to an increase in approximately 930m compared to its existing alignment. The diversion of Footpath E-363/010/0 would lead to an increase in approximately 310m compared to its existing alignment. Impacts would be of large-medium scale; short-term duration and would affect an intermediate extent of the route. The impact on users would be of medium magnitude and taking into consideration the medium sensitivity of route users, would result in a moderate adverse effect **(significant)**.

8.6.68 For users of the Suffolk Coastal Cycle Route and Regional Cycle Route 42, impacts would be of negligible scale. Effects would be negligible neutral **(not significant)**.

8.6.69 For visitors to Leiston Abbey, impacts would be of negligible scale. Effects would be negligible neutral **(not significant)**.

i. **Post removal and reinstatement phase**

8.6.70 Post removal and reinstatement the PRoW that were diverted temporarily during the construction, operation and removal and reinstatement phases would have been re-instated on their original routes, and there would be no effects on users of these routes or other existing recreational resources.

8.6.71 The southern section of the diversion of Footpaths E-363/006/0 and E-363/010/0 linking these footpaths to the new off-road bridleway created as part of the main development site, and the B1122 Abbey Road, would be retained permanently, delivering permanent beneficial effects.

ii. **Inter-relationship effects**

8.6.72 The amenity and recreation assessment of operational effects of the proposed development has inherently considered the impacts due to changes in views, noise, lighting, air quality and traffic on receptors, and 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 a 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 and the removal and reinstatement phase:

- short-term **moderate adverse** effects on users of Footpaths E-363/003/0, 363/006/0 and E-363/010/0.

8.7.3 No significant adverse effects are expected during the operational phase.

8.7.4 Given the temporary nature of effects on amenity and recreational resources and receptors, no secondary mitigation or monitoring is considered necessary to reduce anticipated impacts. Measures to keep all footpaths and the cycle route open, and minimise effects due to changes in noise, air quality, views, trains 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 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) (Ref. 8.2) 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 The following tables (**Tables 8.5, 8.6 and 8.7**) present a summary of the amenity and recreation impact assessment. They identify the receptor/s likely to be impacted, the level of effect and, where the effect is deemed to be significant, the tables 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
Footpath E-363/003/0	Temporary diversion between Saxmundham to Leiston Branch Line and Buckleswood Road. 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 <b>(significant)</b>	None proposed	Moderate adverse <b>(significant)</b>

**NOT PROTECTIVELY MARKED**

Receptor	Impact	Primary Or Tertiary Mitigation	Assessment Of Effects	Additional Mitigation	Residual Effects
Footpath E-363/006/0 and Footpath E-363/010/0	Temporary diversion and construction of 2m high landscape bunds. Short-term impacts from construction noise and changes to views.	Diversion to provide continuous safe provision across the site. Construction landscape bunds to screen views and attenuate noise.	Moderate adverse <b>(significant)</b>	None proposed	Moderate adverse <b>(significant)</b>
Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route (42)	Short-term impact from construction traffic, noise and changes to views.	Construction of landscape bunds to attenuate noise. Best practice construction methods.	Negligible neutral <b>(not significant)</b>	None required	Negligible neutral <b>(not significant)</b>
Leiston Abbey	Short-term impact from construction noise and changes to views.	Construction of landscape bunds to partially screen views of rail extension route.	Negligible neutral <b>(not significant)</b>	None required	Negligible neutral <b>(not significant)</b>

**Table 8.6: Summary of effects for the operational phase.**

Receptor	Impact	Primary Or Tertiary Mitigation	Assessment Of Effects	Additional Mitigation	Residual Effects
Footpath E-363/003/0	Long-term impact of temporary diversion and changes to views and noise	Diversion provides continued safe access	Moderate-minor adverse <b>(not significant)</b>	None required	Moderate-minor adverse <b>(not significant)</b>
Footpath E-363/006/0 and Footpath E-363/010/0	Long-term impact of temporary diversion and change to views and noise	Diversion provides continued safe access; landscape bunds to provide visual and acoustic screening	Moderate-minor adverse <b>(not significant)</b>	None required	Moderate-minor adverse <b>(not significant)</b>
Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route (42)	Long-term impact of noise and potential change to views due to rail extension route	Landscape bunds to provide visual and acoustic screening	Negligible neutral <b>(not significant)</b>	None required	Negligible neutral <b>(not significant)</b>

Receptor	Impact	Primary Or Tertiary Mitigation	Assessment Of Effects	Additional Mitigation	Residual Effects
Leiston Abbey	Long-term changes to views, noise from passing trains	Landscape bunds to provide visual and acoustic screening	Negligible neutral <b>(not significant)</b>	None required	Negligible neutral <b>(not significant)</b>

**Table 8.7: Summary of effects for the removal and reinstatement phase.**

Receptor	Impact	Primary Or Tertiary Mitigation	Assessment Of Effects	Additional Mitigation	Residual Effects
Footpath E-363/003/0	Temporary diversion between Saxmundham to Leiston Branch Line and Buckleswood Road. 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 <b>(significant)</b>	None	Moderate, adverse <b>(significant)</b>
Footpath E-363/006/0 and Footpath E-363/010/0	Temporary diversion via the B1122 (Abbey Road). Short-term impacts from construction noise and changes to views.	Diversion to provide continuous safe provision across the Site. Provision of landscape bunds to screen views and attenuate noise.	Moderate adverse <b>(significant)</b>	None	Moderate adverse <b>(significant)</b>
Suffolk Coastal Cycle Route and Sustrans Regional Cycle Route (42)	Short-term impact from construction traffic, noise and changes to views.	Best practice construction methods.	Negligible neutral <b>(not significant)</b>	None	Negligible neutral <b>(not significant)</b>
Leiston Abbey	Short-term impact from construction noise and changes to views.	Best practice construction methods.	Negligible neutral <b>(not significant)</b>	None	Negligible neutral <b>(not significant)</b>

## References

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