



# **Anglia Rail: Reduction Strategy**

Habitats Regulations Assessment: Task 1  
Screening S01 Sea Wall

20 January 2017



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# Executive summary

Mott MacDonald has been appointed by Network Rail to inform and guide actions for the re-route of an existing footpath as part of proposals for the closure of Sea Wall (S01) level crossing in the county of Suffolk. This report provides the Habitats Regulations Assessment Task 1 screening for likely significant effects (alone or in combination with other projects or plans) resulting from proposals.

Before deciding to undertake a plan or project that may give rise to significant effects upon a European site, and that is not directly connected with or necessary to the management of a European site, a competent authority or appropriate authority must assess the implications for that site in view of that site's conservation objectives. Such an assessment may also include 'functionally linked' land outside a European site that would, if affected by a plan or project, give rise to significant effects upon a European site.

The proposed footprint is located adjacent to the boundary of the Stour and Orwell Estuary Special Protection Area (SPA) European site, and the Stour and Orwell Estuary Ramsar wetland of international importance. The Project is not directly connected with or necessary to the management of any European site.

This Task 1 Screening identified that no direct impact in terms of habitat loss is anticipated on any European site from the proposed Project. No likely significant effect alone or in combination can be concluded during the construction and operational phase of the new footpath.

**No likely significant effect alone or in combination can be concluded**, on the understanding that construction works such as removal of level crossing infrastructure and fence installation, would not be undertaken between September – March inclusive (the winter period for waterbirds) or within 300m of mean high water springs (MHWS).

Industry best practice would be adhered to as set out in the CIRIA Control of water pollution from construction sites guidance (C532) and 'BS 5228-1:2009: Code of practice for noise and vibration control on construction and open sites' to minimise the likelihood of water pollution or noise disturbance events occurring. Acoustic barriers and screening bund are to be used where practicable.

# 1.0 Introduction

## 1.1 Project Background

Mott MacDonald Limited has been commissioned by Network Rail to complete a Habitats Regulations Assessment (HRA) Task 1 Screening at S01 Sea Wall, Brantham, Suffolk. This is to inform proposed works at S01 Sea Wall as part of a wider scheme Network Rail are developing for the possible closure or change to public rights of way at 130 level crossing in Anglia.

These proposals are the initial phase of the Anglia Level Crossing Reduction Strategy aimed to:

- Improve the safety of level crossing users;
- Deliver a more efficient and reliable railway;
- Reduce ongoing operating and maintenance cost of the railway;
- Reduce delays to trains, pedestrians, and other highway users; and
- Improve journey time reliability for railway, highway and other rights of way users.

At this stage there are no proposals to include new railway bridges or underpasses.

This report provides a HRA Task 1 Screening for the proposal and provides information to enable screening of the proposed route option at S01 Sea Wall with respect to the determination of a likely significant effect (LSE) on European sites of nature conservation importance. This step in the HRA process and associated requirements are further described in the following sections.

## 1.2 The Purpose of the Habitats Regulations Assessment

In accordance with Article 6(3) of the Habitats Directive, an Appropriate Assessment is required where a plan or project not directly connected with or necessary to the management of a Natura 2000 site(s), may give rise to significant effects upon a Natura 2000 site(s). The requirement for an Appropriate Assessment has been transposed into UK law under Regulation 61 of the Conservation of Habitats and Species Regulations 2010 ('Habitats Regulations') (S.I. 2010/490) (as amended). 'Appropriate Assessment' is taken to mean an assessment which is "appropriate to its purpose under the Habitats Directive and Habitats Regulations" and is commonly referred to as a 'Habitats Regulations Assessment' (HRA). This is to clearly distinguish the whole process from the second step in the assessment process with the same name (Department for Communities and Local Government (DCLG), 2006).

Natura 2000 sites include Special Protection Areas (SPAs), Special Areas for Conservation (SACs), candidate SACs and proposed SPAs, as well as Sites of Community Importance (SCIs) which have been adopted by the EC, but not yet formally designated by the government of the Member State. Natura 2000 sites are herein referred to as European sites in accordance with the Habitat Regulations. In the UK, Ramsar wetlands of international importance are also required to undergo an assessment when a plan or project is considered likely to have a significant effect upon a site (Department for Environment, Food and Rural Affairs (Defra), 2006). It should be noted that herein Ramsar sites are also referred to as European sites.



Before deciding to undertake a plan or project that may give rise to significant effects upon a European site, and that is not directly connected with or necessary to the management of a European site, a competent authority or appropriate authority must assess the implications for that site in view of that site's conservation objectives. Such an assessment may also include 'functionally linked' land outside a European site that would, if affected by a plan or project, give rise to significant effects upon a European site.

In the context of planning permission under the Town and Country Planning Act 1990 (as amended) the local authority is the competent authority with regards to Regulation 61(1) of the Habitats Regulations. The competent authority must also consult with the appropriate nature conservation body, in this case Natural England (NE), and have regard to any representations made by that body.

The European Commission's guidance on Planning for the Protection of European Sites: Appropriate Assessment (2001) identifies a four-stage process to the assessment of the effects of plans or projects on European sites, referred to as 'stages' in the case of the assessment of projects or 'tasks' in the case of the assessment of plans (Figure 1). In respect of permitted development rights, these can only be exercised following an Appropriate Assessment by the local authority under Regulation 15 of the Habitats Regulations.

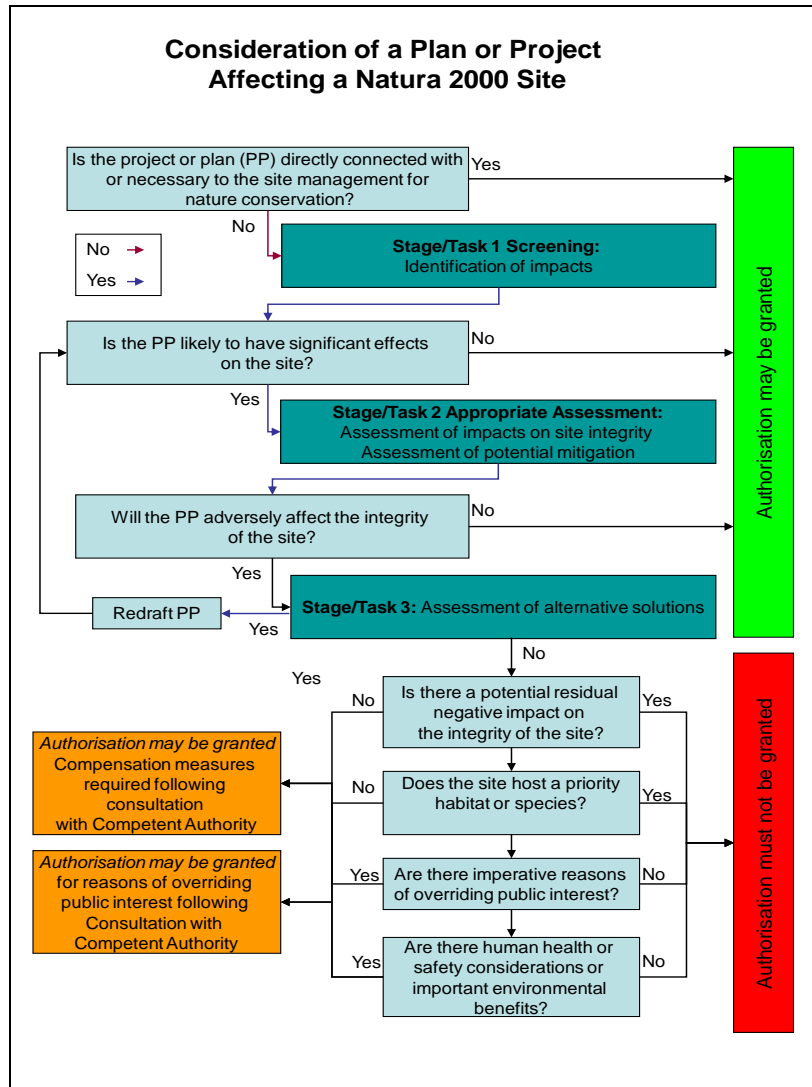
The four stages are:

- HRA Task 1 - Screening: Screening for Likely Significant Effect (LSE) (alone or in combination with other projects or plans);
- HRA Task 2 - Appropriate Assessment: Assessment of implications of identified LSEs on the conservation objectives of a European site to ascertain if the proposal will adversely affect the integrity of a European site;
- HRA Task 3 – Assessment of Alternatives (where it cannot be ascertained that the proposal will not adversely affect the integrity of a European site alternative solutions; and
- HRA Task 4 – Assessment of Imperative Reasons for Overriding Public Interest (IROPI) (where no alternatives are identified).

The series of tasks correspond with the steps prescribed by the Habitats Directive. Each stage determines whether further stages in the process are required. The first stage identifies LSEs by identifying the presence or absence of significance indicators. A LSE is taken to be any effect, that may be reasonably predicted resulting from a project, that may affect the conservation objectives of the features for which the European site(s) was designated. If the conclusion of HRA Task 1 is that there will be no significant impacts on the European site(s), there is no requirement to undertake further tasks.

Where a project is likely to give rise to significant effects upon a European site(s), an assessment must be made of the implications on the integrity of that site in view of that site's structure, function and conservation objectives (HRA Task 2). Furthermore, where there are adverse impacts, an assessment of potential mitigations will also be required in HRA Task 2. If it is concluded that adverse impacts are likely to remain after mitigation, there must be an examination of alternative ways to complete the project that avoids adverse impacts on the integrity of the site (HRA Task 3). Where alternatives exist these should be subjected to HRA Task 1 and/or Task 2 assessments. Where no alternatives exist it is necessary under Article 6(4) of the Habitats Directive to identify if there are or are not IROPI. If there are IROPI then compensatory measures must be assessed (HRA Task 4).

This document presents the first of the assessment tasks, Task 1 Screening, where the identification of LSE is reported. Any effect that may be reasonably predicted because of a project, that may affect the conservation objectives of the features for which the European site(s) was designated is referred to as a LSE within the context of this report.



**Figure 1 The Article 6 Assessment Process**

### 1.3 Structure of this report

The structure of this report includes the following elements:

#### Chapter 2: Task 1 Screening

- Step 1: Management of the European site(s);
- Step 2: Description of the Project;
- Step 3: Characteristics of the European site(s); and
- Step 4: Assessment of significance.

#### Chapter 3: Task 1 Outcomes

## 2 Task 1 Screening

### 2.1 Introduction

The objective of Task 1 Screening is an assessment of the potential for a LSE to result from a project that may affect the conservation objectives of the features for which the European site(s) was designated. This Task 1 Screening examines the potential direct, indirect and in-combination effects that the proposed project may have on a European Site and determines the necessity to carry out a Task 2 Appropriate Assessment.

This Task 1 Screening has been undertaken in accordance with the following guidelines:

- Managing Natura 2000 Sites: The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC’ (European Commission, 2000); and
- ‘Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC’ (European Commission, 2001).

In conducting this Task 1 Screening the following was carried out:

- A desk-based review of available information including:
  - European site(s), their primary reasons for selection and qualifying features; conservation objectives and site vulnerabilities;
  - The sensitivity of the primary reasons for selection and qualifying features to environmental change; and
  - Ordnance Survey Open Data mapping and aerial imagery.
- An assessment of the LSE of potential impacts of the proposed project on the European site(s) with regards to the sites conservation objectives.

For each European site considered within the screening exercise it will be concluded that either:

- There are no LSEs on the European site(s), either alone or in-combination with other plans or projects and therefore no further assessment is required; or
- LSEs on the European site(s) exist, alone or in-combination with other plans or projects, therefore requiring an Appropriate Assessment by the competent authority.

Definitions of conservation status, integrity and significance used in this report are defined in accordance with the European Commission guidance (2000) (Table 1).

**Table 1 Standard Definitions**

Term	Description
Project	The term 'project' should be given a broad interpretation to include both construction works and other interventions in the natural environment.
Plan	The term 'plan' also has a broad meaning, including land-use plans and sectoral plans or programmes but leaving out general policy statements.
Management	The 'conservation' management of a site, i.e. the term 'management' is to be seen in the sense in which it is used in Article 6(1).
Conservation status – species	The sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its population.
Conservation status – habitats	The sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long term survival of its typical species.
Favourable condition – species	Achieved when: Population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitat; The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.
Favourable condition – habitats	Achieved when: Its natural range, and area it covers within that range, is stable or increasing; The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and The conservation status of its typical species is favourable.
Integrity of a site	The coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified.
Significant effect	The deterioration of natural habitats and the habitats of species, as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the conservation objectives of the site.

Source: European Commission, 2000

## 2.2 Step 1: Management of the European Site(s)

The project described below, is not directly connected with or necessary to the management of any European site.

## 2.3 Step 2: Description of the Project

### 2.3.1 'The Project' S01 Sea Wall

S01 Sea Wall is a level crossing included within the Anglia Level Crossing Reduction Strategy, located within Brantham Parish, Suffolk. The level crossing is currently a stop, look and listen public footpath level crossing where users decide whether it is safe to cross. The level crossing offers users additional protection through whistle boards (instructing train drivers to sound their horn on approach) between the hours of 07:00-23:00. There are generally 286 trains passing through the level crossing each day.

S01 Sea Wall level crossing currently enables a public footpath (E-159/013/0) to cross the existing railway. To inform the current proposals Network Rail undertook a census survey of the number and the type of level crossing users in June and July 2016 (Network Rail, 2016). A three day census was undertaken (Saturday, Sunday and Monday) and daily usage averaged 14 pedestrians (weekdays) and seven pedestrians (weekend).

Network Rail propose to close the level crossing to all users, extinguish a section of existing footpath and divert users along a new route. The proposed new route would make use of existing byways and a new circular route would be provided to the south of the railway through the creation of a new 2m wide public footpath, routed along the edge of an arable field. A map of the proposed route option for the new footpath can be found in Appendix A of this report (Figure 2).

The proposed route option will require installation of a 3m timber footbridge to provide crossing over a watercourse along the northern boundary of the arable field, at the foot of the existing sea wall embankment.

### Construction

The proposed new footpath will be an unsurfaced path with some minor vegetation removal to allow access for users along the new route. It is expected that in the short term a length of approximately 4m of common reed (*Phragmites australis*) would be removed along the margins of the watercourse to allow installation of the footbridge. Due to the scope for recolonization from stands of reed remaining in situ either side of the cleared area, reeds would grow back to the footbridge with no significant loss of connectivity. In addition, at 3m wide, the footbridge would not cause a significant amount of shading along the watercourse and the construction of the footbridge would be bank to bank with no disruption of water flow.

Stock proof fencing will be installed along the alignment of the route as it runs along. This will prevent disturbance to this habitat and to any species present.

It is envisaged that during construction the labour force would be small and that a pick up type truck will be used to transport materials and potentially a JCB excavator used to create necessary footings. Access for the installation of the footbridge would be along arable field margins. No major excavation will be required other than the footings required to construct the bridge/fences, and it is not foreseen any piling will be necessary.

The time of year will be controlled. Whilst the duration of the works is unknown, these are likely to be of short duration ie weeks rather than months. Some stages of the works (removal of

existing level crossing infrastructure) may require railway possession which involves activities at night and during the weekend.

### 2.3.2 European Sites for Consideration in Screening

The process used in screening for European sites took account of the location of the sites relative to works, the Zone of Influence (ZoI) of potential impacts arising from the project and the ecology and distribution of qualifying features.

The Study Area comprises an area within which the Zone of Influence (ZoI) has the potential to occur, with searches for designated sites initially carried out to 2km using the “Multi Agency Geographic Information for the Countryside” (MAGIC) website.

Following the initial identification of sites, the potential for LSE is considered. European sites with qualifying features which overlap with the Project were screened in for further assessment. In relation to bird features, European sites that support populations with potential connectivity/interaction with the Project were considered.

It should be noted that due to the nature of the proposed works the extent for potential connectivity and/or interaction is limited to the route of the proposed new footpath and the intertidal habitat adjacent to the works. The ZoI means that receptors identified in Section 2.3.4 would not necessarily be exposed to impacts across the whole site. Section 2.4.4.1 considers the sensitivity of each receptor

### 2.3.3 European Sites identified

Following the process identified above a total of two sites (one SPA and one Ramsar site) have been screened for assessment with respect to the Project. These are detailed in Table 2 and distances between the Project and the European sites given. The extent of the two designated sites within the Study Area are identical.

**Table 2: European sites within 2km of the Project**

Site Name	Designation	Distance	Description
Stour and Orwell	SPA	Immediately adjacent to the Project	The Stour and Orwell estuaries SPA (and Ramsar) are located in the most easterly part of Great Britain and form an important part of the Eastern Flyway for migrating wildfowl and waders. The estuaries comprising extensive mudflats, low cliffs, saltmarsh and areas of vegetated shingle are separate for most of their tidal lengths but merge and share a mouth into the North Sea. The estuaries provide wintering habitat for important wetland bird species.
Stour and Orwell	Ramsar	Immediately adjacent to the Project	

Source: Defra, 2016

## 2.4 Step 3: Characteristics of the European Site(s)

The qualifying features of the European sites identified as requiring assessment can be found in Table 3 and Table 4.

Qualifying features of these sites include bird features (SPA and Ramsar site) and various nationally scarce plants and British Red Data Book invertebrates (Ramsar site).

**Table 3: Stour and Orwell Estuaries SPA**

Species	SPA citation (5 year peak mean 1991/2 - 1995/6) <sup>a</sup>	SPA citation (5 year peak mean 1995/96-1999/2000) <sup>b</sup>
Breeding populations of European importance for species listed on Annex I of the Directive		
Pied avocet <i>Recurvirostra avosetta</i>	42 individuals; 3.6% of GB population	21 pairs
Over-wintering populations of European importance listed on Annex I of the Directive		
Hen harrier <i>Circus cyaneus</i>	10 individuals; 1.3% of GB population (count as at 1996/7)	N/A
Regularly occurring migrant of European importance for migratory birds		
Black-tailed Godwit <i>Limosa limosa islandica</i>	2,475 individuals; 3.5% of the wintering Iceland population	2559 individuals
Dunlin <i>Calidris alpina alpina</i>	23,940 individuals; 1.7% of the wintering Northern Siberia/Europe/Western Africa population	19114 individuals
Grey Plover <i>Pluvialis squatarola</i>	3,660 individuals; 2.4% of the wintering Eastern Atlantic population	3261 individuals
Pintail <i>Anas acuta</i>	878 individuals; 1.5% of the wintering Northwestern Europe population	741 individuals
Redshank <i>Tringa tetanus</i>	3,545 individuals; 2.4% of the wintering Eastern Atlantic wintering population	3687 individuals wintering 2588 concentration

Species	SPA citation (5 year peak mean 1991/2 - 1995/6) <sup>a</sup>	SPA citation (5 year peak mean 1995/96-1999/2000) <sup>b</sup>
Ringed Plover <i>Charadrius hiaticula</i>	578 individuals; 1.2% of the wintering Europe/Northern Africa wintering population	372 individuals wintering 638 individuals concentration
Shelduck <i>Tadorna tadorna</i>	3,672 individuals; 1.2% of the wintering Northwestern Europe population	2955 individuals
Turnstone <i>Arenaria interpres</i>	836 individuals; 1.2% of the wintering Western Palearctic - wintering population	690 individuals
Internationally important assemblage of birds		
Regularly supports over 20,000 waterfowl	Overwinter the area regularly supports 63017 waterfowl	Overwinter supports 63017 waterfowl

Source: a) information published 2001 (JNCC, 2001) b) updated Natura 2000 – Standard Data Form (JNCC, 2016)

**Table 4: Stour and Orwell Estuaries Ramsar**

Cited species (subspecies)	Reason for qualifying
Criterion 2 (supports vulnerable, endangered, or critically endangered species or threatened ecological communities)	
Nationally scarce plants	Stiff saltmarsh-grass <i>Puccinellia rupestris</i> Small cord-grass <i>Spartina maritima</i> Perennial glasswort <i>Sarcocornia perennis</i> Lax-flowered sea lavender <i>Limonium humile</i> Eelgrasses <i>Zostera angustifolia</i> , <i>Z. marina</i> and <i>Z. noltei</i>
British Red Book invertebrates	Muscid fly <i>Phaonia fusca</i> Horsefly <i>Haematopota grandis</i> Spiders <i>Arctosa fulvolineata</i> and <i>Baryphema duffeyi</i> Swollen spire snail <i>Mercuria confusa</i> (endangered)
Criterion 5 (regularly supports 20,000 or more waterbirds)	
Species with peak counts in winter: 63,017 waterfowl	
Criterion 6 (regularly supports 1% of the individuals in a population of one species or subspecies of waterbird)	
Species with peak counts in spring/autumn	
Common redshank <i>Tringa totanus totanus</i>	2588 individuals; 2% of the population
Species with peak counts in winter	
Dark-bellied brent goose <i>Branta bernicla bernicla</i>	2627 individuals; 1.2% of the population
Northern pintail <i>Anas acuta</i> , NW Europe	741 individuals; 1.2% of the population
Grey plover <i>Pluvialis squatarola</i> , E Atlantic/W Africa - wintering	3261 individuals; 1.3% of the population
Red knot <i>Calidris canutus islandica</i> , W & Southern Africa	5970 individuals; 1.3% of the population
Dunlin <i>Calidris alpina alpina</i> , W Siberia/W Europe	19114 individuals; 1.4% of the population
Black-tailed godwit <i>Limosa limosa islandica</i> , Iceland/W Europe	2559 individuals; 7.3% of the population
Common redshank <i>Tringa totanus totanus</i>	3687 individuals; 2.8% of the population

Source: Ramsar Information Sheet (JNCC, 2008)

## Presence of qualifying features within the Study Area

The potential impacts arising from construction, operation and maintenance and decommissioning are summarised below.



The broad Unit 25 has been identified to include over 50% of qualifying species for the SPA. Potential impacts on wetland birds in the SPA, taking account of their ecology as well as the type, size and scale of the work proposed for the Project, have been identified as follows:

- Noise disturbance;
- Disturbance from human presence;
- Water pollution; and
- Artificial light.

Potential impacts and pathways for both the construction and operational phase upon relevant features of the European sites and potential for an LSE based on information presented below are listed in **Error! Reference source not found.** There is sufficient uncertainty with regards to whether the proposed new footpath would ever be decommissioned in the future and therefore decommissioning has not been considered at this time.

**Table 5. Potential Impacts**

Development Phase	Potential impact and pathways	Qualifying features requiring assessment	LSE Identified
<b>Construction</b>	<b>Noise Disturbance</b> Temporary disturbance associated with removal of existing level crossing infrastructure	waterfowl assemblage (intertidal)	No
	<b>Disturbance form human presence</b> The Study Area is already subjected to an existing baseline of human presence from users of the existing footpath,	waterfowl assemblage (intertidal)	No
	<b>Water pollution</b> Accidental release of water pollutants (leaks / spillages from construction vehicles)	waterfowl assemblage (intertidal)	No
	<b>Artificial light</b> The use of artificial lighting during construction can result in light spill, with a pathway existing through an overall increase in light levels within the Study Area which has the potential to change the behaviour of birds and result in displacement.	waterfowl assemblage (intertidal)	No
<b>Operation</b>	<b>Disturbance from human presence</b>	waterfowl assemblage (intertidal)	No

### Noise disturbance

While the Study Area is already subjected to an existing baseline of noise from the adjacent railway, some construction methods are known to be a particular issue in relation to disturbance to wetland birds (Hill *et al.*, 1997), with noise levels above 70db(A) at the receptor likely to cause moderate to high effects. In general, birds tend to habituate to continual noises so long as there

is no large amplitude 'startling' component, with vehicle movements being more greatly tolerated (Hockin *et al.*, 1992).

Works would avoid the period September to March inclusive for the aspects of construction such as removal of existing level crossing infrastructure. Methods would be controlled through implementing mitigation as per 'BS 5228-1:2009: Code of practice for noise and vibration control on construction and open sites', to reduce the impact of frequent, high intensity construction.

For works required at the level crossing temporary screening would be installed to prevent birds seeing into the operational areas, thereby preventing visual disturbance.

Disturbance to waterbirds within the ZOI may cause birds to take flight (either returning to the same area or departing), and cease feeding or roosting. However, the duration of works will be short term and the sources of disturbance and displacement on the survival or productivity of the waterbird population using the habitats immediately adjacent to the Project is considered to be negligible.

### Disturbance from human presence

Temporary increase in human activity during removal of level crossing infrastructure may result in increased visual disturbance relating to the ability of the birds to view movement within the site and the possibility that this movement may disturb them. The distance in which birds take flight when approached by people walking varies significantly. A review by Borgmann (2011) found flight initiation distance ranged from 12 to 160m, whereas Cutts *et al.* (2009) observed flight initiation at 200m and Smit and Visser (1993) recorded distances up to 213m.

Natural screening will be provided during the installation of the footbridge by the existing sea wall embankment. The works area would be accessed along the arable field. Minimise artificial lighting and use hooded spot lights directed away from potential suitable habitat.

During operation the impacts of human disturbance will be reduced as users are diverted away from the SPA.

### Water pollution

This may cause negative impacts if bird habitat and food sources are affected. Adherence to industry best practice as prescribed for works and maintenance in or near water in the Construction Industry Research and Information Association (CIRIA) guidance Control of water pollution from construction sites guidance (C532) and with regard to the pollution prevention guidelines (PPGs) with particular reference to PPG1 (general guide to the prevention of water pollution), PPG5 (works near or liable to affect watercourses) and PPG6 (working at construction and demolition sites) will minimise the likelihood of such an incident occurring.

### Artificial light

Artificial light has been shown to affect birds in a variety of ways. Repulsion to light has also been shown by some species, creating pockets of unsuitable habitat which may cause habitat fragmentation and isolation.

The potential impact of artificial light may be minimised through design measures. Implementing artificial lighting above baseline levels should be avoided where possible and spot lighting with hoods used to minimise light spill. Lights should be positioned away from intertidal foreshores and any potential habitat supporting qualifying species.

## Plans and projects which might act in combination

No impacts have been identified which may act in combination.

In May 2016 Babergh's Planning Committee voted to grant Planning Permission for an industrial, commercial, retail and residential development in Brantham (reference B/15/00263/OUT) located north of S01 Sea Wall level crossing. Following the undertaking of an Appropriate Assessment, which included a package of mitigation measures to protect the SPA (to be secured through a s106 legal agreement), no objections were presented for the proposal. Mitigation includes control of timing and operations of the works; Maintenance of Stour and Orwell Forum Database; SPA information leaflets for new residents; SPA footpath marker discs to be installed on footpaths in the vicinity; SPA information boards (one on the footpath between the development and the SPA and one on the Public Open Space viewpoint; Future monitoring of the Stour and Orwell Estuaries SPA for 3 years; Means of providing a post and wire fence with mesh to prevent dogs off the lead entering the mudflats (if required) – note this would be on land owned by the applicant and dependent on 3 year monitoring of situation (following occupation of first dwelling).

## 2.5 Step 4: Assessment of Significance

Step 3 of the screening exercise identified a number of potential impacts on qualifying features of the Sour and Orwell Estuaries SPA/Ramsar as a result of the Project. These included: noise disturbance, accidental pollution of water and disturbance associated with artificial lighting during construction; and disturbance from human presence, both during construction and operation.

In all cases, the potential impacts identified relate to bird features (waterfowl assemblage) of the site, with no potential impact pathways identified for other features.

No LSE has been identified to any SPA feature and as such, this assessment does not require further assessment on site integrity.

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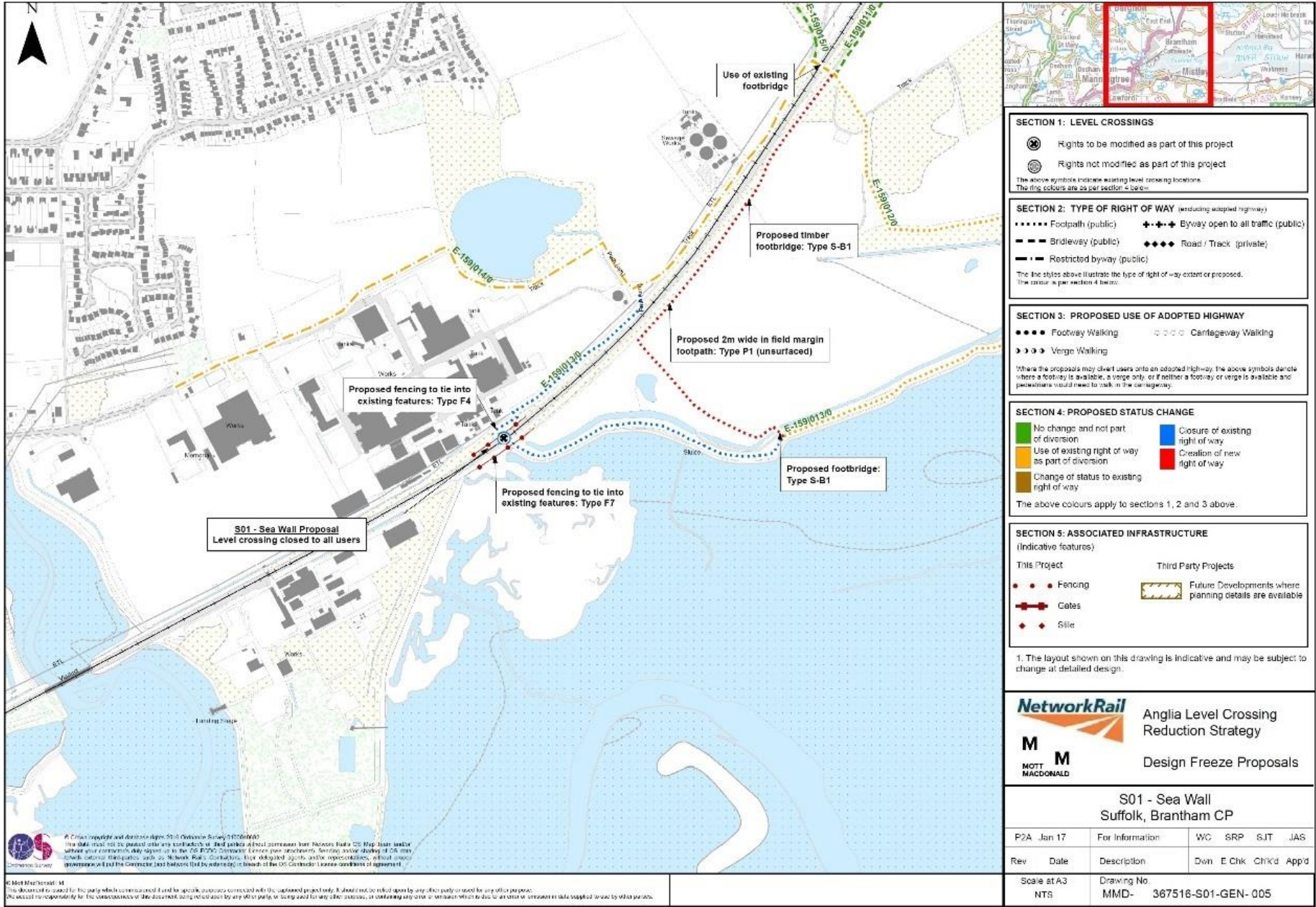
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## A. Appendix A

Figure 2 – Project Location





## B. Appendix B

Figure 3 – Phase 1 Habitat Map within 30m buffer and Designated Areas within a 250m buffer



