

A47 North Tuddenham to Easton Dualling

Scheme Number: TR010038

Volume 6

6.3 Environmental Statement Appendices

Appendix 8.16 - DMRB biodiversity evaluation assessment methodology

APFP Regulation 5(2)(a)

Planning Act 2008

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

March 2021

Infrastructure Planning

Planning Act 2008

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

The A47 North Tuddenham to Easton
Development Consent Order 202[x]

ENVIRONMENTAL STATEMENT APPENDICES

Appendix 8.16 - DMRB biodiversity evaluation assessment methodology

Regulation Number:	5(2)(a)
Planning Inspectorate Scheme Reference	TR010038
Application Document Reference	TR010038/APP/6.3
BIM Document Reference	HE551489-GTY-EBD-000-RP-LB-30027
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Version	Date	Status of Version
Rev 0	March 2021	Application Issue

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1. Introduction

- 1.1.1. The ecological assessment within the Biodiversity main chapter of the A47 North Tuddenham to Easton ES was undertaken in accordance with the most recent Highways England guidance The Design Manual for Roads and Bridges (DMRB) LA 108 Biodiversity (**TR010038/APP/6.1**).
- 1.1.2. Following the identification and description of the baseline ecological conditions and likely ecological constraints at the site, the following tables from the DMRB LA 108 are used within the assessment process.

1.2. Biodiversity resource importance

- 1.2.1. Table 3.9 from DMRB LA 108 is used in the valuation of the identified ecological receptors on site to determine whether receptors are important in the wider context at an international/European level, a UK/national level, a regional level or a county/equivalent authority level, or in a local context (local importance level) (**TR010038/APP/6.1**).

Table 1-1: biodiversity resource importance (Table 3.9 from LA 108, DMRB)

International or European importance	
Sites	Sites including: 1) European sites: a) Sites of Community Importance (SCIs); b) Special Protection Areas (SPAs); c) potential SPAs (pSPAs); d) Special Areas of Conservation (SACs); e) Candidate or possible SACs (cSACs or pSACs); f) Wetlands of International Importance (Ramsar sites). 2) Biogenetic Reserves, World Heritage Sites (where recognised specifically for their biodiversity value) and Biosphere Reserves. 3) areas which meet the published selection criteria for those sites listed above but which are not themselves designated as such.
Habitats	N/A
Species	Resident, or regularly occurring, populations of species which can be considered at an international or European level where: 1) the loss of these populations would adversely affect the conservation status or distribution of the species at an international or European scale; or 2) the population forms a critical part of a wider population at this scale; or 3) the species is at a critical phase of its life cycle at an international or European scale.

UK or national importance	
Sites	<p>Sites including:</p> <ol style="list-style-type: none"> 1) Sites of Special Scientific Interest (SSSIs) or Areas of Special Scientific Interest (ASSIs); 2) National Nature Reserves (NNRs); 3) National Parks; 4) Marine Protected Areas (MPAs) including Marine Conservation Zones (MCZs); or 5) areas which meet the published selection criteria for those sites listed above but which are not themselves designated as such.
Habitats	<p>Habitats including:</p> <ol style="list-style-type: none"> 1) areas of UK BAP priority habitats; 2) habitats included in the relevant statutory list of priority species and habitats; and 3) areas of irreplaceable habitats including: <ol style="list-style-type: none"> a) ancient woodland; b) ancient or veteran trees; c) blanket bog; d) limestone pavement; e) sand dunes; f) salt marsh; g) lowland fen. 4) areas of habitat which meet the definition for habitats listed above but which are not themselves designated or listed as such.
Species	<p>Resident, or regularly occurring, populations of species which can be considered at an international, European, UK or national level where:</p> <ol style="list-style-type: none"> 1) the loss of these populations would adversely affect the conservation status or distribution of the species at a UK or national scale; or 2) the population forms a critical part of a wider population at this scale; or 3) the species is at a critical phase of its life cycle at a UK or national scale.
Regional importance	
Sites	Designated sites (non-statutory) including heritage coasts.
Habitats	Areas of habitats identified (including for restoration) in regional plans or strategies (where applicable).
Species	<p>Species including:</p> <ol style="list-style-type: none"> 1) resident, or regularly occurring, populations of species which can be considered at an international, European, UK or national level where: <ol style="list-style-type: none"> a) the loss of these populations would adversely affect the conservation status or distribution of the species at a regional scale; or

	<ul style="list-style-type: none"> b) the population forms a critical part of a wider regional population; or c) the species is at a critical phase of its life cycle; <p>2) Species identified in regional plans or strategies.</p>
County or equivalent authority importance	
Sites	<p>Wildlife / nature conservation sites designated at a county (or equivalent) level including:</p> <ul style="list-style-type: none"> 1) Local Wildlife Sites (LWS); 2) Local Nature Conservation Sites (LNCS); 3) Local Nature Reserves (LNRs); 4) Sites of Importance for Nature Conservation (SINCs); 5) Sites of Nature Conservation Importance (SNCIs); 6) County Wildlife Sites (CWSs);
Habitats	<p>Areas of habitats identified in county or equivalent authority plans or strategies (where applicable).</p>
Species	<p>Species including:</p> <ul style="list-style-type: none"> 1) resident, or regularly occurring, populations of species which can be considered at an international, European, UK or national level where: <ul style="list-style-type: none"> a) the loss of these populations would adversely affect the conservation status or distribution of the species at a county or unitary authority scale; or b) the population forms a critical part of a wider county or equivalent authority area population, e.g. metapopulations; or c) the species is at a critical phase of its life cycle. 2) Species identified in a county or equivalent authority area plans or strategies.
Local importance	
Sites	<p>Wildlife / nature conservation sites designated at a local level including:</p> <ul style="list-style-type: none"> 1) Local Wildlife Sites (LWS); 2) Local Nature Conservation Sites (LNCS); 3) Local Nature Reserves (LNRs); 4) Sites of Importance for Nature Conservation (SINCs); 5) Sites of Nature Conservation Importance (SNCIs); 6) Sites of Local Nature Conservation Importance (SLNCIs).
Habitats	<p>Areas of habitat considered to appreciably enrich the habitat resource within the local context including features of importance for migration, dispersal, or genetic exchange.</p>
Species	<p>Populations / communities of species considered to appreciably enrich the habitat resource within the local context including features of importance for migration, dispersal or genetic exchange.</p>

1.3. Level of impact and typical descriptions

1.3.1. In order to characterise identified effects upon ecological receptors as a result of the Proposed Scheme, Table 3.11 (below) from DMRB LA 108 Biodiversity is used as guidance (**TR010038/APP/6.1**). The guidance determines the level of impact by assessing whether an impact is positive or negative (adverse or beneficial), the duration of the impact (permanent or temporary), whether the impact is reversible or irreversible, the extent and magnitude of the impact, and the frequency and timing of the impact.

Table 1-2: level of impact and typical descriptions (Table 3.11 from LA 108, DMRB)

Level of impact (change)		Typical description
Major	Adverse	1) Permanent/irreversible damage to a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact negatively affects the integrity or key characteristics of the resource.
	Beneficial	1) Permanent addition of, improvement to, or restoration of a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact positively affects the integrity or key characteristics of the resource.
Moderate	Adverse	1) Temporary/reversible damage to a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact negatively affects the integrity or key characteristics of the resource.
	Beneficial	1) Temporary addition of, improvement to, or restoration of a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact positively affects the integrity or key characteristics of the resource.
Minor	Adverse	1) Permanent/irreversible damage to a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.
	Beneficial	1) Permanent addition of, improvement to, or restoration of a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.
Negligible	Adverse	1) Temporary/reversible damage to a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.
	Beneficial	1) Temporary addition of, improvement to, or restoration of a biodiversity resource; and 2) the extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.
No change		No observable impact, either positive or negative.

1.4. Significance matrix

1.4.1. The significance of the identified effect upon ecological receptors is determined by assessing the previously identified importance of the resource and the level of impact, as detailed in DMRB LA 108 Table 3.13 below (**TR010038/APP/6.1**).

Table 1-3: significance matrix (Table 3.13 from LA 108, DMRB)

		Level of impact				
		No change	Negligible	Minor	Moderate	Major
Resource importance	International or European importance	Neutral	Slight	Moderate or large	Large or very large	Very large
	UK or national importance	Neutral	Slight	Slight or moderate	Moderate or large	Large or very large
	Regional importance	Neutral	Neutral or slight	Slight	Moderate	Moderate or large
	County or equivalent authority importance	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
	Local importance	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight