

High Speed Rail (Crewe – Manchester) Environmental Statement

Volume 5: Appendix EC-001-OR003

Ecology and biodiversity

Off-route works: Annandale depot

Ecological baseline data - designated sites

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Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

High Speed Two (HS2) Limited
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.hs2.org.uk

A report prepared for High Speed Two (HS2) Limited:

ARUP+ ERM | FOSTER + PARTNERS | JACOBS
RAMBOLL | TYPISA | COSTAIN

MWJV

Mott MacDonald | WSP

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1 Introduction

- 1.1.1 This report is an appendix to the ecological assessment. It presents information on designated sites relevant to the Proposed Scheme in relation to the off-route works at Annandale depot.
- 1.1.2 This report should be read in conjunction with Volume 4, Off-route effects and Volume 5, Appendices.
- 1.1.3 The Ecological register of significant effects below local level is set out in Volume 5: Appendix EC-003-OR003.
- 1.1.4 Document to inform a Habitats Regulations Appraisal Screening Report and Appropriate Assessment for the Solway Firth Special Protection Area (SPA), Upper Solway Flats and Marshes Ramsar Site and Solway Firth Species Area of Conservation (SAC) is provided in Volume 5, EC-004-OR003.
- 1.1.5 Designated sites are shown in the Volume 5, Ecology Map Book: Map Series EC-01. In addition, figures showing the distribution of statutory designated sites are contained within the Document to inform a Habitats Regulations Appraisal Screening Report and Appropriate Assessment for the Solway Firth SPA, Upper Solway Flats and Marshes Ramsar Site and Solway Firth SAC (see Volume 5, EC-004-OR003).
- 1.1.6 In addition, the baseline data used for the ecological assessment is set out in Background Information and Data (BID), (see BID EC-002-OR003¹) and the BID Ecology Map Book, Map Series EC-02.
- 1.1.7 Note that baseline data for badger is not made publicly available due to the current and historic persecution of this species.

¹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Background Information and Data, Ecological baseline data*, BID EC-002-OR003. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

2 Designated sites

2.1 Methodology

- 2.1.1 Data searches were initially undertaken to identify designated sites within the following extents as defined in the Technical Note – Ecology and biodiversity – Ecological field survey methods and standards (FSMS) included in the Environmental Impact Assessment Scope and Methodology Report (SMR) (see Volume 5, Appendix CT-001-00001):
- statutory designated sites within 10km of the land required for the construction of the Proposed Scheme (i.e. a 10km buffer around the land required for the construction of the Proposed Scheme); and
 - non-statutory designated sites within 5km of the land required for the construction of the Proposed Scheme (i.e. a 5km buffer around the land required for the construction of the Proposed Scheme).
- 2.1.2 Information on designated sites was obtained from the following sources:
- South West Scotland Environmental Information Centre; and
 - NatureScot.

Habitats Regulations screening reports

- 2.1.3 A document to inform a Habitats Regulations Appraisal Screening Report and Appropriate Assessment has been prepared for the Solway Firth SPA, Upper Solway Flats and Marshes Ramsar Site and Solway Firth SAC (see Volume 5, EC-004-OR003).

2.2 Deviations, constraints and limitations

- 2.2.1 All sites within the extents defined within the SMR were reviewed to identify those that were considered likely to be relevant to the assessment. Due to the scale of the Proposed Scheme, only details of those sites meeting the following criteria are presented in the following baseline section:
- all statutory designated sites within a 500m buffer of the land required for the construction of the Proposed Scheme;
 - any other statutory designated sites which are considered potentially subject to significant effects;
 - all non-statutory designated sites within or adjacent to the land required for the construction of the Proposed Scheme; and
 - any other non-statutory designated sites which are considered potentially subject to significant effects.

2.3 Baseline

Statutory designated sites

2.3.1 Table 1 provides details of statutory designated sites relevant to the assessment, based on the criteria identified in the SMR. Sites are arranged from south to north and distances are provided to the land required for the construction of the Proposed Scheme. In all cases the distance to the land required for the construction of the Proposed Scheme is closer or equidistant to the distance to construction traffic routes.

Table 1: Statutory designated sites: SPA, SAC, Ramsar sites and Sites of Special Scientific Interest (SSSI) of relevance to the Annandale depot assessment

Site name and designation	Ordnance survey (OS) grid reference	Site description	Distance from the land required for the construction of the Proposed Scheme (m) and orientation
Solway Firth SPA (including the former Upper Solway Flats and Marshes SPA and marine extension)	NY086577	<p>The Solway Firth SPA covers an area of 1,375km² of the Solway Firth Estuary. The SPA includes the former Upper Solway Flats and Marshes SPA that spanned the Upper Solway Flats and Marshes SSSI (below) and 1,050km² marine habitat following an extension in 2020, primarily to protect important wintering grounds used by feeding and roosting red-throated diver <i>Gavia stellate</i>, common scoter <i>Melanitta nigra</i> and goosander <i>Mergus merganser</i>.</p> <p>The site is designated because it regularly supports non-breeding populations of European importance: red-throated diver; whooper swans <i>Cygnus cygnus</i>; barnacle goose <i>Branta leucopsis</i>; golden plover <i>Pluvialis apricaria</i>; and bar-tailed godwit <i>Limosa lapponica</i>.</p> <p>The site also qualifies because it regularly supports populations of European importance of the following migratory species: pink-footed goose <i>Anser brachyrhynchus</i>; pintail <i>Anas acuta</i>; scaup <i>Aythya marila</i>; oystercatcher <i>Haematopus ostralegus</i>; knot <i>Calidris canutus</i>, curlew <i>Numenius arguata</i> and redshank <i>Tringa tetanus</i>. The site also qualifies under this criterion by regularly supporting populations of European importance of ringed plover <i>Charadrius hiaticula</i> during the non-breeding (passage) period.</p> <p>The site further qualifies, by regularly supporting over 20,000 water birds. In addition to the species listed above, this includes nationally important populations of the following species: shelduck <i>Tadorna tadorna</i>; teal <i>Anas crecca</i>; shoveler <i>A. clypeata</i>; goldeneye <i>Bucphala clangula</i>; grey plover <i>Pluvialis squatarola</i>; sanderling <i>Calidris alba</i>; dunlin <i>Calidris alpina</i>; turnstone <i>Arenaria interpres</i>; common scoter; goosander; lapwing <i>Vanellus vanellus</i> cormorant <i>Phalacrocorax carbo</i>; black-headed gull <i>Chroicocephalus ridibundus</i>; common gull <i>Larus canus</i> and herring gull <i>Larus argentatus</i>.</p>	2.6km south

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Site name and designation	Ordnance survey (OS) grid reference	Site description	Distance from the land required for the construction of the Proposed Scheme (m) and orientation
Upper Solway Flats and Marshes Ramsar site	NY086577	Upper Solway Flats and Marshes Ramsar site covers an area of 43,676ha. It is designated for: the large assemblage of wintering birds, and individual species listed above with respect to the former Upper Solway Flats and Marshes SPA designation; for presence of greater scaup <i>Aythya marila</i> ; and because it supports over 10% of the British population of natterjack toad <i>Bufo calamita</i> .	2.6km south
Solway Firth SAC	NY086577	Solway Firth SAC covers an area of 43,676ha. It is designated for the Annex I habitats present; sandbanks that are slightly covered by sea water all the time; estuaries, mudflats and sandflats that are not covered by seawater at low tide; <i>Salicornia</i> species, and other annuals, colonising mud and sand; and Atlantic salt meadows. In addition, the following habitats are present as qualifying features, but not a primary reason for selection: reefs, perennial vegetation of stony banks, and fixed coastal dunes with herbaceous vegetation ('grey dunes'). Sea lamprey <i>Petromyzon marinus</i> and river lamprey <i>Lampetra fluviatilis</i> are Annex II species, which are also a primary reason for selection of this site.	2.6km south
Upper Solway Flats and Marshes SSSI	NY178579	Upper Solway Flats and Marshes SSSI covers an area of 43,368ha, spanning Cumbria and Dumfries and Galloway; of this designated area, 24,892ha is in Scotland. It represents one of the largest continuous areas of intertidal habitat in Britain. It is a component of, and entirely contained within, the areas designated for the Solway Firth SAC, Upper Solway Flats and Marshes Ramsar site, and Solway Firth SPA, respectively described above. The estuarine complex is of national and international importance for wintering wildfowl and wading birds, and migratory species. The SSSI is also noted for its populations of breeding birds, natterjack toads and invertebrates, and a number of rare plants.	2.6km south
Raeburn Flow SAC	NY295717	Raeburn Flow SAC covers an area of 64.2ha. It is designated for the Annex I habitats present; active raised bog and degraded raised bog still capable of regeneration.	1.1km north
Raeburn Flow SSSI	NY295717	Raeburn Flow SSSI covers an area of 64.0ha. It is designated for the relatively undisturbed lowland raised bog and entirely contained by the SAC designation described above.	1.1km north

Non-statutory designated sites

2.3.2 There are no non-statutory designated sites located within 500m of the land required for the construction of the Proposed Scheme, or likely to be affected by the Proposed Scheme.

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- 2.3.3 The Upper Solway Flats and Marshes is identified as an Important Bird Area², further to the international and national designations listed in Table 1.

² BirdLife International (2019), *Important Bird Areas factsheet: Upper Solway Flats and Marshes*. Available online at: <http://www.birdlife.org>.

High Speed Two (HS2) Limited

Two Snowhill

Snow Hill Queensway

Birmingham B4 6GA

Freephone: 08081 434 434

Minicom: 08081 456 472

Email: HS2enquiries@hs2.org.uk
