

**M42 Junction 6 Improvement  
Scheme Number TR010027  
Volume 6**

**6.8 Habitat Regulations Assessment:  
No Significant Effects Report**

Regulation 5(2)(g)

Planning Act 2008

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

January 2019

Infrastructure Planning

Planning Act 2008

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

M42 Junction 6 Improvement  
Development Consent Order 202[ ]

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## Executive Summary

- 1.1.1 This Habitats Regulations Assessment: No Significant Effects Report forms part of the Development Consent Order application for the M42 Junction 6 Improvement Scheme (the Scheme), and has been prepared in accordance with the requirements of Regulation 5(2)(g) of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009.
- 1.1.2 The Scheme comprises a series of road improvements proposed by Highways England to address congestion and journey reliability issues at Junction 6 of the M42 motorway in Birmingham.
- 1.1.3 The report assesses whether the Scheme would adversely affect the integrity of European Sites and their qualifying features. It has been prepared by Highways England to provide the competent authority with sufficient information to enable them to make an appropriate assessment of the implications on such sites, if required, in accordance with their duties under The Conservation of Habitats and Species Regulations 2017.
- 1.1.4 Through a process of screening, four European Sites have been identified and assessed: Ensor's Pool Special Area of Conservation (SAC); Fens Pools SAC; Cannock Extension Canal SAC; and the River Mease SAC.
- 1.1.5 The assessment of potential pathways has identified that there would be no Likely Significant Effects on these sites as a result of the construction, operation or maintenance of the Scheme – either alone or in-combination with other development plans or projects – principally due to their distance from the Scheme.
- 1.1.6 Based on the outcomes of the Habitats Regulations Assessment, it is considered that an appropriate assessment is not required by the competent authority.

# 1 Introduction

## 1.1 Background

- 1.1.1 Highways England is the Government-owned company responsible for the operation, maintenance and improvement of England's motorways and major A-roads. It is proposing to implement the M42 Junction 6 Improvement Scheme (the Scheme) to address congestion and journey reliability issues at Junction 6 of the M42 motorway in Birmingham.
- 1.1.2 The Scheme comprises a series of improvements to the strategic and local road networks, the objectives of which are to: promote the safe and reliable operation of the road network; increase the capacity of the junction; improve access to key businesses; and support economic growth.
- 1.1.3 Highways England has applied for a Development Consent Order (DCO) under Section 37 of the Planning Act 2008 [REF1] to obtain authorisation to construct the Scheme. The application will be examined by an appointed Examining Authority, who will make a recommendation to the Secretary of State for Transport as to whether the DCO should be granted or refused.

## 1.2 Overview of the Habitats Regulation Assessment process

- 1.2.1 European Union (EU) obligations in respect of habitats and species are met through Directive 92/43/EEC (the Habitats Directive) [REF2] on the conservation of natural habitats and of wild fauna and flora.
- 1.2.2 The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations) [REF3] transpose the requirements of the Habitats Directive [REF2] into UK legislation.
- 1.2.3 Habitats Regulations Assessment (HRA) is a process undertaken to meet the requirements of this legislation, which states that any plan or project that is not directly connected with, or necessary to, the management of a European Site<sup>1</sup>, but would be likely to have a significant effect on such a site, either on its own or in-combination with other plans or projects, will be subject to an appropriate assessment of its implications for the European Site in view of its conservation objectives.
- 1.2.4 The Habitats Directive [REF2] and Habitats Regulations [REF3] require competent authorities<sup>2</sup> to decide whether a development plan or project should proceed, having undertaken sufficient assessment through a staged process of HRA to:
- i. determine, through a process called screening, whether the plan or project – either alone or in combination with other plans or projects – may have a significant adverse effect on a European Site; then

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<sup>1</sup> A European Site is also referred to as a Natura 2000 site. These comprise Special Areas of Conservation (SAC), candidate Special Areas of Conservation (cSAC), and Special Protection Area (SPA). The UK Government also applies HRA procedures to potential Special Protection Areas (pSPA), Ramsar sites, and (in England) possible SACs, proposed Ramsar sites and sites identified (or required) as compensatory measures for adverse effects on any of the above sites.

<sup>2</sup> The competent authority for the Scheme is the Secretary of State for Transport.

- ii. if required, undertake an appropriate assessment of the plan or project to determine whether there may be an adverse effect on the integrity of the European Site;
- iii. examine alternative solutions to the plan or project; and
- iv. provide justification for the Imperative Reasons of Overriding Public Interest for the plan or project, including any compensatory measures secured.

1.2.5 Where the screening process concludes that there is no potential for Likely Significant Effects<sup>3</sup> (LSE) on European Sites as a result of a plan or project, there is no requirement to carry out the subsequent stages of the HRA.

### 1.3 Purpose of the report

1.3.1 The Habitats Regulations [REF3] require Highways England to provide information to support any decision made by the competent authority on the need for appropriate assessment, and to allow the appropriate assessment to be undertaken where required.

1.3.2 This report presents the conclusions of the first stage in the HRA process (screening) undertaken by Highways England in accordance with the requirements of Regulation 5(2)(g) of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 [REF4].

1.3.3 It has been prepared to:

- i. determine whether the Scheme is directly connected with, or necessary to the management of any European Sites, through the identification of potential effect pathways;
- ii. examine the nature of the work associated with the Scheme;
- iii. establish whether the Scheme (and other plans or projects that in combination with the Scheme) have the potential to result in LSE on the integrity of European Sites; and
- iv. assess the significance of any identified LSE, in order to determine the need for appropriate assessment.

1.3.4 The content of this report draws upon information gathered as part of the Environmental Impact Assessment (EIA) of the Scheme, and should be read in conjunction with the Environmental Statement (ES).

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<sup>3</sup> There is no explicit definition of LSE in legislation, and in the context of HRA it is typically taken as any effect that may reasonably be predicted as a consequence of the project that may undermine a European Site's conservation objectives.

## 2 The Scheme

### 2.1 Overview

- 2.1.1 England's strategic road network drives local economic activity by enabling new housing and business developments to come forward, encouraging trade and attracting investment. The M42 motorway forms an integral part of this network, providing strategic links to the M6, M6 Toll and M5 motorways in the West Midlands.
- 2.1.2 M42 Junction 6 serves a number of important economic assets including Birmingham International Airport, Birmingham National Exhibition Centre, Birmingham International Railway and Jaguar Land Rover, and forms a key interchange with the A45 Coventry Road.
- 2.1.3 M42 Junction 6 carries a significant volume of traffic each day and has almost reached capacity, causing severe congestion and delays. In 2014, the Department for Transport identified that a comprehensive scheme of improvements is required to M42 Junction 6. During 2015-2016, improvements to M42 Junction 6 were undertaken as part of a scheme to improve journey times, which was designed to provide sufficient capacity on the network until 2019.
- 2.1.4 As the Government-owned company responsible for the operation, maintenance and improvement of England's motorways and major A-roads, Highways England is proposing to implement the M42 Junction 6 Improvement Scheme, the objectives of which are to: promote the safe and reliable operation of the road network; increase the capacity of the junction; improve access to key businesses; and support economic growth.
- 2.1.5 Without significant infrastructure investment, the junction will be unable to accommodate the predicted traffic growth beyond 2019, which will constrain future investment and economic growth in the area.

### 2.2 Location and Elements

- 2.2.1 The M42 Junction 6 Improvement Scheme (the Proposed Scheme) would be implemented within an area broadly defined by M42 Junction 7 to the north, Birmingham Airport and Catherine-de-Barnes to the west, Middle Bickenhill and Hampton-in-Arden to the east, and M42 Junction 5 to the south.
- 2.2.2 A more detailed description of these proposals is as follows.

#### **M42 Junction 5A**

- 2.2.3 A new junction (M42 Junction 5A) is proposed approximately 1.8km south of M42 Junction 6. This dumbbell junction would comprise two roundabouts immediately north of Solihull Road, each positioned either side of the M42 motorway and connected by a new bridge over the M42. The new junction would have south facing slip roads only, enabling M42 northbound traffic to exit the M42 motorway and join a new dual carriageway link road, and traffic travelling from the new link road to join the M42 motorway in a southbound direction.
- 2.2.4 The existing Solihull Road overbridge would be demolished and rebuilt on a slightly modified alignment to accommodate the new slip roads.



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### **Dual carriageway link road and the local road network**

- 2.2.5 A new 2.4km long dual carriageway link road (the link road) would connect M42 Junction 5A with the A45 at Clock Interchange, replacing the existing connection between Catherine de Barnes Lane and Clock Interchange. The link would be predominately positioned in cutting to minimise visual and environmental impacts on Bickenhill and the surrounding countryside.
- 2.2.6 Catherine de Barnes Lane would be realigned between Birmingham Dogs Home and Clock Interchange, and the existing connection to Clock Interchange would be closed.
- 2.2.7 A new roundabout (Barber's Coppice roundabout) to the east of Birmingham Dogs Home would provide access to the northbound carriageway of the link road, nearby properties and the Warwickshire Gaelic Athletic Association (GAA) sports facility (referred to by the users as Páirc na hÉireann). From Barber's Coppice roundabout, the realigned Catherine de Barnes Lane would pass over the link road on a new bridge. The existing T-junction with Shadowbrook Lane would be realigned to the north of its current location.
- 2.2.8 North of Barber's Coppice roundabout; Catherine de Barnes Lane, St Peters Lane and Clock Lane would provide local access only, with no direct access onto the A45.
- 2.2.9 A new roundabout (Bickenhill roundabout) located to the west of Bickenhill village would connect Catherine de Barnes Lane to St Peters Lane, and the link road southbound off-slip. From Bickenhill roundabout, Catherine de Barnes Lane would connect to Clock Lane via a new overbridge crossing the link road, and to St Peters Lane, via a modified T-junction.

### **A45 Coventry Road and Clock Interchange**

- 2.2.10 The link road would connect to the A45 via a reconfigured Clock Interchange roundabout, which would be widened to have three lanes, new traffic signals, and improvements to slip roads joining the interchange. On the approach to the Clock Interchange from the new link road, a segregated left turn lane would enable traffic to join the A45 and head westbound. Spurring off the northbound carriageway of the link road, prior to the junction at Clock Interchange, a new free flow slip road would allow road users to connect to the existing link leading to Airport Way; allowing direct access to Birmingham Airport and the National Exhibition Centre.
- 2.2.11 The existing segregated lane from Bickenhill Lane to the A45 eastbound would be closed. Works would also be undertaken to realign and widen Bickenhill Lane, immediately north of Clock Interchange.

### **M42 Junction 6 free flow links**

- 2.2.12 A free flow link for A45 eastbound to M42 northbound traffic would be constructed on the north-west quadrant of the junction, with an underpass constructed beneath the existing National Exhibition Centre access. To facilitate construction of this link, a sloped abutment on the existing Eastway overbridge would be replaced with a retaining wall.
- 2.2.13 A free flow link from the M42 southbound to A45 eastbound would be constructed on the north-eastern quadrant of the junction. The existing connection to Eastway



would be modified through the introduction of a new slip road and roundabout to maintain access from the M42 southbound to the National Exhibition Centre.

- 2.2.14 The slip road from the A45 eastbound to the Middle Bickenhill loop would be closed, and the Middle Bickenhill loop connecting Eastway with the settlement of Middle Bickenhill would be upgraded to provide two-way access.
- 2.2.15 The existing M42 northbound to A45 westbound free flow link would be closed to traffic, and the M42 northbound off-slip road would be improved to accommodate four lanes of traffic and provide network resilience.

#### **Modifications to the M42 motorway**

- 2.2.16 Modifications would be undertaken to the M42 between Junctions 5 and 7 to alter the location and spacing of several emergency refuge areas (ERAs), and to accommodate the additional signing, gantries and road markings required by the new road layout.

#### **Modifications to the Warwickshire Gaelic Athletic Association**

- 2.2.17 The link road would sever the existing access to the Warwickshire Gaelic Athletic Association from Catherine de Barnes Lane, and would require land currently used for sports pitches. Modifications would be made to reconfigure the access and the layout of the affected pitches using adjacent land to the south of the facility, in order to secure its continued operation and viability.

### **2.3 Landtake and Accommodation Works**

- 2.3.1 Land currently subject to a range of uses would be permanently taken to accommodate the engineering, drainage and environmental components of the Proposed Scheme, and temporarily for construction purposes.
- 2.3.2 New tracks, gated accesses and an accommodation overbridge across the link road (to the south east of Barber's Coppice roundabout) would enable landowners, residents and businesses to continue to access their property and land interests.

### **2.4 Road Signage, Markings, Barriers, Lighting and Surfacing**

- 2.4.1 New road signage and markings would be installed across the Proposed Scheme. Barriers would be installed on new and improved sections of road, with the appropriate type of road surfacing applied to new and improved sections of road depending on local conditions.
- 2.4.2 The new junctions on the M42 and Clock Interchange would be lit, and some slip roads and local road junctions would be partially lit.

### **2.5 Earthworks and Drainage**

- 2.5.1 A combination of earthworks cuttings and embankments would be used to reduce the environmental impact of the Proposed Scheme, and to achieve the desired levels to connect into the existing road network.
- 2.5.2 Drainage infrastructure comprising kerb drains, gullies, filter drains, reed bed systems, pumping stations, underground storage tanks, culvert extensions and swales would be installed to capture, direct, store, treat and discharge

carriageway run-off into drainage networks maintained separately by Highways England and Solihull Metropolitan Borough Council.

- 2.5.3 Several new access tracks would be formed to allow drainage infrastructure to be inspected and maintained.

## 2.6 Landscaping and Boundary Treatments

- 2.6.1 Measures comprising improved grassland, trees, hedgerows and scrub planting would be used to: integrate the Proposed Scheme into the local landscape; create and enhance ecological habitats; screen new road infrastructure in existing views; provide visual interest to road users; and compensate for vegetation loss.

- 2.6.2 Boundaries created or altered by the Proposed Scheme would predominantly be demarcated using wooden post and rail fencing and hedgerows.

## 2.7 Non-Motorised User Provisions

- 2.7.1 Measures comprising footpaths, cycle paths, underpasses and bridge crossings would be implemented at locations throughout the Proposed Scheme to enable the continued movement of non-motorised users on routes affected by temporary or permanent closures and diversions.

- 2.7.2 Enhancements would also be made to existing routes and facilities, including the relocation of existing bus stops affected by the Proposed Scheme.

## 2.8 Construction

- 2.8.1 Construction of the Proposed Scheme is anticipated to commence in 2020. Works would be undertaken in sequential phases to reduce the extent and duration of disruption to residents, businesses and road users, and would be completed in 2024.

- 2.8.2 Temporary construction compounds would be established at several locations across the Proposed Scheme to provide equipment and materials storage, welfare facilities and parking for contract staff. The main compound would be located north of Bickenhill village, to the immediate south east of Clock Interchange. A number of smaller compounds would be formed along the link road and at other locations requiring specific works or activities.

- 2.8.3 The construction phase would require the use of different equipment and machinery suited to the location and nature of the works to be undertaken. Enabling works undertaken prior to the main construction activities would include: the diversion of utilities; the demolition of a small number of existing buildings and structures; vegetation clearance; the stripping and storage of top soil; and the formation of temporary fencing and accesses.

- 2.8.4 Activities during the main construction phase would comprise: traffic management; earthworks; carriageway formation and realignment; the erection of structures; and the installation of supporting infrastructure. Restoration works would be carried out to return areas of land used temporarily to their former condition and use, upon completion of the works.

## 2.9 Future Maintenance

- 2.9.1 The future maintenance of the Proposed Scheme would be undertaken on a routine basis, and following any major incidents or extreme weather events.

Typical activities would include the inspection and repair of barriers and signage, carriageway repairs, renewal of road markings, maintenance of highway verges and boundaries, landscape management, and the inspection and maintenance of road drainage infrastructure.

## 3 Habitats Regulations Assessment Methodology

### 3.1 Consultation

3.1.1 Highways England made a formal request to the Planning Inspectorate for a Scoping Opinion in October 2017, the purpose of which was to agree the form and nature of the assessments to be undertaken as part of the Environmental Impact Assessment of the Scheme.

3.1.2 The request was accompanied by a Scoping Report [REF5] which, based on the preliminary ecological information gathered at the time of its production, identified that an appropriate assessment by the competent authority was unlikely to be required due to there being no European Sites in proximity to the Scheme.

3.1.3 The Planning Inspectorate's Scoping Opinion [REF6] received in December 2017 stated the following in respect of HRA matters:

*"It is noted from the Scoping Report that no European nature conservation sites have been found within the vicinity of the Proposed Development... and that an assessment under The Conservation of Habitats and Species Regulations 2010 (as amended) is unlikely to be required."*

*"The Inspectorate advises the Applicant to ensure that this remains the case in light of the recent coming into force of the Conservation of Habitats and Species Regulations 2017. As a general recommendation, an up to date Habitats Regulations Assessment (HRA) screening report should be produced... and should be referenced in the ES. The HRA report should in turn contain references to where the information on which it is based is to be found in the ES."*

3.1.4 In providing its Scoping Opinion [REF6], the Planning Inspectorate sought the views of Natural England on the proposed scope of the Environmental Impact Assessment. Their response noted the following in relation to HRA:

*"The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (e.g. designated Special Areas of Conservation and Special Protection Areas) fall within the scope of the Conservation of Habitats and Species Regulations 2010. In addition paragraph 118 of the National Planning Policy Framework requires that potential Special Protection Areas, possible Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites."*

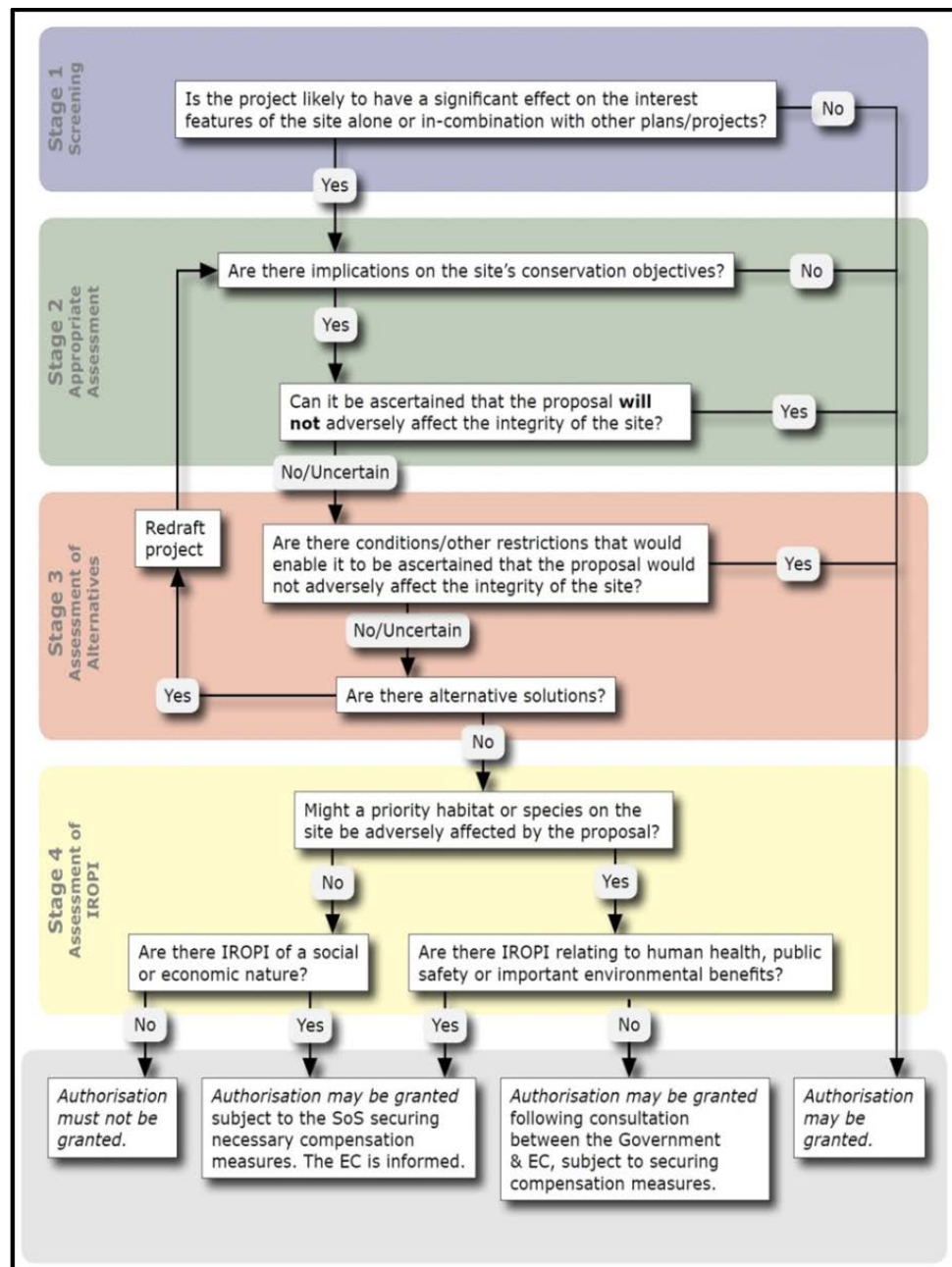
3.1.5 The process of HRA screening has taken account of these responses, copies of which are provided in Appendix A of this report.

### 3.2 Scope of the assessment

#### **Habitats Regulations Assessment guidance**

3.2.1 Advice published by the Planning Inspectorate [REF7] provides guidance and direction on undertaking and reporting HRA. It defines HRA as a four stage iterative process, as reproduced in Figure 3.1, which commences with a

screening exercise to identify the potential for LSE on the interest features of a European Site and determine the need for appropriate assessment.



**Figure 3.1: The four stages of Habitats Regulations Assessment [REF7]**

- 3.2.2 This advice [REF7] has been used as the principle guidance when undertaking and reporting the screening exercise.
- 3.2.3 The exercise has also been informed by guidance on HRA published by:
- i. Highways England [REF8 & REF9] which advises on the identification of potential impact pathways on European Sites and the definition of geographical distances over which impacts may occur on certain sites; and
  - ii. the European Commission [REF10] on the assessment of plans and projects significantly affecting European Sites.



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## Scoping of European Sites

- 3.2.4 There is no pre-defined guidance that stipulates the scope of a HRA in relation to the potential for LSE on European Sites arising from a plan or project.
- 3.2.5 It is therefore common practice to identify which European Sites (and the designated interest features within each site) should be screened for LSE through a process of HRA scoping.
- 3.2.6 Highways England guidance [REF8] recommends that the scope of a HRA should be defined on a case-by-case basis, reflecting the project and the surrounding environmental conditions over which it is reasonable to expect that LSE could potentially occur. Notwithstanding this, it does state that as a general guide, consideration should be given to identifying:
- i. European Sites within 200 metre of roads affected by the Scheme (termed the Affected Road Network), with features sensitive to air pollutants that could be adversely affected by local air quality changes;
  - ii. European Sites within 2 kilometres of a route corridor or project boundary; and
  - iii. SACs within 30 kilometres where bats are noted as one of the qualifying features.
- 3.2.7 Where a project would potentially cross or would lie adjacent to, upstream of, or downstream of, a watercourse which is designated in part or wholly as a SAC or SPA, the guidance [REF8] also states that consideration should be given to potential impacts on European Sites within the same river, lake or reservoir catchment, or at greater distance if an effect pathway exists.
- 3.2.8 The identification of European Sites to be screened was informed by the above considerations and the outcomes of HRA scoping, the objective being to identify those sites that could potential be affected by the Scheme. Linkages were established using a source-pathway-receptor approach, consistent with advice and guidance published by the Planning Inspectorate [REF7] and the European Commission [REF10], which involved the following activities.
- Potential effect-generating activities and effect pathways*
- 3.2.9 Pathways are routes by which a change in activity associated within the Scheme can lead to an effect upon a European Site. This activity identified potential sources of effects associated with the Scheme, and then mapped how the effect might progress along a given migration pathway.
- 3.2.10 Potential pathways were identified in relation to the following categories, guided by published guidance [REF7 & REF8], and are discussed further in chapter 4.
- i. Landtake.
  - ii. Air Quality.
  - iii. Water Quality.
  - iv. Noise and Vibration.

*The likely spatial extents of effects*

- 3.2.11 For each identified category, a potential zone of influence was established to identify the geographical extents over which the identified pathways could result in significant effects on the interest features of European Sites.

*Potential receptors*

- 3.2.12 Baseline information regarding the location, designation, status, sensitivity and qualifying features of European Sites was obtained and reviewed to identify potential receptors.
- 3.2.13 This was sourced from data presented within the Environmental Statement relating to biodiversity surveys, records and assessments undertaken as part of the Environmental Impact Assessment of the Scheme, and published citations relating to the conservation objectives of European Sites (see Appendix B).
- 3.2.14 Potential receptors were identified where the zone of influence coincided with a European Site or, for mobile species, where their foraging range from a European Sites coincided with the zone of influence.

*Connectivity with European Sites*

- 3.2.15 Based on the identification of potential effects, the zone of influence and potential receptors, the process of HRA scoping established whether connectivity and linkages were present between the qualifying species recorded in the zone of influence and European Sites.

**European Sites taken forward for screening**

- 3.2.16 All species with potential connectivity and functional linkages to European Designated Sites were scoped in to the assessment to identify potential LSE.
- 3.2.17 Based on the outcomes of the HRA scoping process, a total of four European Sites with potential pathways to the Scheme were identified. These four sites are discussed in detail in chapter 5 and are presented on Figure 1 in Appendix B.

**Identification of Likely Significant Effects**

- 3.2.18 The identification of LSE on European Sites was determined based on the following factors.
- i. The likelihood that a qualifying feature (habitat or species) will be present in the area surrounding the Scheme.
  - ii. The likelihood that a pathway exists that connects the qualifying feature to a population protected within a European Site and the extent to which the qualifying feature contributes to that population.
  - iii. The ability of the qualifying feature to avoid or adapt to impacts, the availability of alternative, suitable habitat and the likelihood that the qualifying feature will access it.
  - iv. The conservation objectives for the designated species and other information that supports the determination of the importance of the area around the Scheme to the qualifying feature.



### **Identification of other plans and projects**

- 3.2.19 Consideration was given in to the potential for the effects of other plans and projects to combine with those associated with the Scheme and give rise to LSE on the identified European Sites.
- 3.2.20 Based on the Planning Inspectorate's advice [REF7], information was gathered from publicly available sources and appraised for the following types of development to identify the likelihood of in-combination LSE occurring.
- i. Projects currently under construction [REF11].
  - ii. Permitted application(s) not yet implemented [REF11].
  - iii. Submitted application(s) not yet determined [REF11].
  - iv. All refusals subject to appeal procedures not yet determined [REF11].
  - v. Projects on the National Infrastructure Planning's programme of projects [REF12].
  - vi. Planned projects identified in published development plans [REF13] (acknowledging the limited information and degree of uncertainty that typically exists with such plans).
- 3.2.21 The in-combination assessment considered whether other identified plans or projects would:
- i. make effects more likely to occur (or occur at a greater level of significance);
  - ii. make insignificant effects significant; or
  - iii. generate new or different effects (that would not occur if the plans or projects proceeded alone).
- 3.2.22 Where the screening exercise concluded there to be no possibility for the Scheme to contribute to an in-combination effect from the pathways identified (when acting alone), or where the effects predicted were considered so weak that no significant contribution to any in-combination effects would occur, an in-combination assessment was not undertaken.

### **Case law relating to Habitats Regulations Assessment**

- 3.2.23 The 'Sweetman' European Court of Justice ruling in 2018 [REF14] has determined that mitigation measures specifically introduced to avoid or reduce the harmful effects of a project on European Sites should not be taken into account when considering the LSE of a plan or project during the screening stage.
- 3.2.24 The screening exercise undertaken for the Scheme reflects the implications of this judgment, and excludes the contribution that mitigation measures could have in reducing, offsetting or compensating LSE on identified European Sites.

## 4 Identification of impact pathways and European Sites

### 4.1 Potential impact pathways

4.1.1 The following potential impact pathways were identified and appraised as part of the screening exercise, to inform the identification of European Sites and determine the potential for LSE to occur from the construction, operation and maintenance of the Scheme.

#### **Landtake**

4.1.2 This topic considered the total area of land that would be taken temporarily to construct the Scheme and that which would be permanently acquired for its long term operation and maintenance.

4.1.3 The area over which terrestrial and freshwater habitats could be affected (either directly or indirectly) by the Scheme was quantified and mapped as part of the Environmental Impact Assessment process, in order to establish whether this would result in the disturbance of species or the loss/destruction of habitats associated with European Sites.

#### **Air Quality**

4.1.4 It was observed that local air quality may improve or deteriorate in proximity to the Scheme and the Affected Road Network, as a result of changes to traffic flows, composition and speed.

4.1.5 This topic accordingly considered whether concentrations of pollutants in the air and the deposition of particle matter derived from road traffic emissions could result in damage to vegetation or affect the health, productivity and composition of plants within European Sites.

4.1.6 Specific consideration was given to whether existing soil characteristics would alter as a result of the Scheme, and thereby changing pH values and nitrogen availability.

4.1.7 The appraisal also considered whether vegetation would be exposed to higher concentrations of NO<sub>2</sub>, particularly in locations in close proximity to the road network where traffic flows are forecast to increase as a result of the Scheme.

4.1.8 The ecological consequences of the above on vegetation within European Sites were identified as potentially being:

- i. changes in species composition especially in nutrient poor ecosystems with a shift towards species associated with higher nitrogen availability (e.g. dominance of tall grasses);
- ii. a reduction in species richness;
- iii. increases in plant production;
- iv. a decrease or loss of sensitive lichens and bryophytes; and
- v. increases in nitrate leaching.

### **Water Quality**

- 4.1.9 Poor water quality can have a range of environmental impacts on European Sites. At high levels, toxic chemicals and metals can result in the immediate death of aquatic life (both flora and fauna). At lower levels, detrimental effects can also be experienced, including increased vulnerability to disease and changes in wildlife behaviour.
- 4.1.10 This topic considered the quality of the water that feeds European Sites, and whether they are a determinant of the nature of their habitats and the species they support. It reviewed whether rivers, streams and aquatic environments supporting European Sites could be affected by pollutants contained in road runoff (such as vehicle oil and other chemicals) associated with the Scheme.
- 4.1.11 Consideration was also given to the potential for pollution incidents on surface water and groundwater associated with activities such as the de-icing the roads with salt, and accidental spillages of fuel, oil and lubricants during construction of the Scheme.

### **Noise and Vibration**

- 4.1.12 Noise generated as a result of human activity can mask biologically useful sounds (i.e. 'signals') or impair the hearing of species.
- 4.1.13 This topic considered whether activities associated with the Scheme would potentially generate noise and vibration to the extent that it could cause disturbance to terrestrial and freshwater species within European Sites.

## 5 Identification of European Sites

- 5.1.1 This chapter sets out the results of the study of the potential source-receptor pathways for the Scheme, and identifies those European Sites which require an assessment of LSE.
- 5.1.2 Based on the geographical distances set out in Highways England’s guidance [REF8], the appraisal of European Sites concluded that:
- i. there are no European Sites within 200 metres of the Affected Road Network;
  - ii. there are no European Sites located within 2 kilometre of the Scheme; and
  - iii. there are no European sites located within 30 kilometre of the Scheme, for which bats form part of the qualifying features.
- 5.1.3 The appraisal also identified that transboundary effects would not occur as no overlap exists between the Scheme and the areas of devolved administrations in the UK, or those of other European Economic Area States.
- 5.1.4 The consideration of European Sites accordingly focused on sites located between 2 kilometres and 30 kilometres of the Scheme (where bats do not form part of the qualifying features), where potential pathways within the topics of landtake, air quality, water quality, and noise and vibration exist.
- 5.1.5 Table 5-1 summarises the European Sites that were identified through the HRA scoping process for screening of LSE and the reasons for their inclusion, the locations of which are illustrated on Figure 1 in Appendix B. The citations and conservation objectives for each identified European Site are provided in Appendix C.

**Table 5-1: European Sites identified for screening of LSE**

European Site	Direction from Scheme	Distance from the Scheme	Reason for inclusion
Ensor’s Pool SAC	North-east	16.1km	Site was identified as being sensitive to hydrological change
Fens Pools SAC	North-west	27.5km	Site was identified as being sensitive to hydrological change
Cannock Extension Canal SAC	North-east	27.1km	Site was identified as being sensitive to hydrological change
River Mease SAC	North	27.7km	Site was identified as being downstream of the Scheme and sensitive to hydrological change

- 5.1.6 Details relating to qualifying features, conservation objectives and potential threats for each European Site are presented within the screening matrices contained in Chapter 6 and in Appendix D. A summary of the pathways relevant to each European Site is also provided in Appendix D, presented in the format prescribed in the Planning Inspectorate’s HRA advice note [REF7].

## 6 Likely Significant Effect Matrices

- 6.1.1 The potential for LSE on the four identified European Sites has been assessed using the screening matrices presented in Tables 6-1 to 6-4.
- 6.1.2 The matrices have identified that there would be no risk of adverse effects on any of these European Sites due to the intervening distance between the Scheme and the boundaries of each identified site. Accordingly, the screening exercise has concluded that there would be no LSE on the qualifying features of the identified European Sites as a consequence of the construction, operation and maintenance of the Scheme.
- 6.1.3 In accordance with Highways England reporting guidance [REF8], the “Findings of No Significant Effects Report” for each of the identified European Sites is provided in Appendix E.
- 6.1.4 The consideration of the potential for in-combination effects to occur on European Sites as result of the Scheme and other plans and projects is presented in chapter 7.

**Table 6-1: Ensor’s Pool SAC screening matrix**

<b>Scheme Name:</b>	M42 Junction 6 Improvement Scheme	
<b>European Site Consideration:</b>	Ensor’s Pool Special Area of Conservation	
<b>Date:</b>	<b>Author (Name/Organisation)</b>	<b>Verified (Name/Organisation)</b>
August 2018	AECOM	
<b>Description of the scheme: Describe any likely direct, indirect or secondary impacts of the scheme (either alone or in combination with other plans or schemes) on the European Site by virtue of:</b>		
<b>Size and scale (road type and probable traffic volume)</b>	Construction of a 2.4km long dual carriageway link road and associated junction improvements on the strategic and local road networks.	
<b>Landtake</b>	The Scheme would not require any temporary or permanent landtake from this SAC.	
<b>Distance from the European Site or key features of the site (from the edge of the scheme assessment corridor)</b>	The SAC is located 16.1km north-east from the closet point of the Scheme. White-clawed crayfish are the site’s key feature.	
<b>Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to</b>	The Scheme does not require resources from this SAC.	

consideration of impacts)	
Emissions (e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution)	<p>The SAC does not lie within 200m of the Affected Road Network. The Scheme would therefore not have any adverse impacts on the SAC as a result of air quality changes from vehicle emissions.</p> <p>During the construction phase, the Scheme has potential to generate adverse changes to water quality through water-borne pollution. This includes suspended solids and particulates, hydrocarbons and other chemicals which may arise from construction plant and activities.</p> <p>During operation, runoff toxins associated with traffic such as engine oil, antifreeze and break fluids could contribute to increased heavy metals.</p> <p>The SAC is known to be supplied by groundwater. A significant change in the supply of groundwater (amount or quality) has the potential to alter the nature and extent of habitat suitable for white-clawed crayfish at the SAC. However, due to the distance separating the Scheme from the SAC (over 16km) it is unlikely that there would be any adverse effect upon the groundwater supply to this site, either during construction or once operational. Therefore, no impacts as a result of altered water quality are predicted.</p>
Transportation requirements	<p>Construction of the Scheme would require some temporary road closures and diversions. As construction activities would not require diversion routes beyond intermittent closures, there would not be a significant or long term change to traffic volumes along affected routes during this phase.</p> <p>Construction traffic would access the construction areas via the existing road network and would not be of a volume likely to result in significant changes in air quality along these routes.</p> <p>No roads within 200m of the SAC are part of the Affected Road Network, and no effects on the SAC from transportation are predicted.</p>
Duration of construction, operation etc.	Subject to the grant of consent, construction of the Scheme is expected to commence in March 2020 and would be completed in early 2024.
Other	The SAC would not be impacted by changes in noise of vibration during the construction or operational phases due to the intervening distance between the site and the Scheme.
Description of Avoidance and/or Mitigation Measures: Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:	
Nature of proposals	No specific mitigation measures are required in relation to this SAC due the intervening distance and the absence of an impact pathway between the Scheme and the site.
Location	N/A
Evidence for effectiveness	N/A
Mechanism for delivery (legal conditions, restrictions or other	N/A



legally enforceable obligations)	
Characteristics of European Site: A brief description of the European Site should be produced, including information on:	
Name of European Site and its EU code	Ensor's Pool SAC (UK0012646).
Location and distance of the European Site from the proposed works	Grid reference (centroid) SP 348 903. The SAC is located 16.1km north-east from the closet point of the Scheme.
European Site size	3.86ha.
Key features of the European Site including the primary reasons for selection and any other qualifying interests (Taken from Natura 2000 Standard Data Form)	The presence of the Annex II species which are a primary reason for selection of the site - white-clawed (or Atlantic stream) crayfish <i>Austropotamobius pallipes</i> .
Vulnerability of the European Site – any information available from the standard data forms on potential effect pathways (taken from Natura 2000 standard Data form)	Changes in biotic conditions.
European Site conservation objectives – where these are readily available	Ensure that the integrity of the site is maintained, and ensure that the site retains its ability to contribute to achieving the Favorable Conservation Status of its qualifying features, by maintaining: <ul style="list-style-type: none"> <li>▪ the extent and distribution of the habitats of qualifying species;</li> <li>▪ the structure and function of the habitats of qualifying species; and</li> <li>▪ the supporting processes on which the habitats of qualifying species rely.</li> </ul>
Assessment Criteria: Describe the individual elements of the scheme (either alone or in combination with other plans or schemes) likely to give rise to impacts on the European Site.	
None. Due to the intervening distance between the SAC and the Scheme, there would be no adverse effects associated with landtake, or changes in water quality, air quality or noise and vibration.	
Initial Assessment: The key characteristics of the site and the details of the European Site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:	
Reduction in habitat area	None. The Scheme would not result in any landtake or habitat loss from this SAC.
Disturbance to key species	There would be no disturbance to key species of the SAC as no access to the site is required, and the site is of sufficient distance from the Scheme not to be affected by impacts from pollution,



	light, noise and vibration.
Habitat or species fragmentation	None. No landtake from the SAC would be required as a result of the Scheme, and no severance or fragmentation of habitats would occur.
Reduction in species density	A reduction in species diversity as a result of the Scheme would not occur as there would be no impacts to the SAC.
Changes in key indicators of conservation value (water quality etc.)	No changes in key indicators of conservation value as there would be no impacts to the SAC.
Climate change	Due to the distance between the Scheme and the SAC, changes in traffic flows would have no effect on the site in relation to climate change.
Describe any likely impacts on the European Site as a whole in terms of:	
Interference with the key relationships that define the structure of the site	Structure is taken to correspond to the distribution and abundance of habitats that support the qualifying features of the SAC. Interference with the relationships which define the habitats in the SAC would include changes in water and sediment quality, and disturbance from human activities. It is considered that this would not occur as a result of the Scheme due to the intervening distance and lack of hydrological connectivity.
Interference with the key relationships that define the function of the site	Function is taken here to mean the capacity of the SAC to support the species for which it is designated. The quality and extent of habitats within the SAC would not be affected by the Scheme, either alone or in-combination with other plans or projects, and therefore no effect on the function of the SAC is predicted.
Indicate the significance as a result of the identification of impacts set out above in terms of:	
Reduction of habitat area	Not significant - The Scheme would not result in any landtake or habitat loss from this SAC.
Disturbance to key species	Not significant - There would be no disturbance of key species as a result of the construction or operation of the Scheme.
Habitat or species fragmentation	Not significant - There would be no landtake from the SAC and no severance or fragmentation of habitats or species would occur, as the Scheme and associated works would be maintained within the highway boundary
Loss	Not significant - There would be no loss of species a result of the construction or operation of the Scheme.
Disruption	Not significant - Construction or operation of the Scheme would not disrupt the structure or function of the key relationships within the SAC.
Disturbance	Not significant - Disturbance to white-clawed crayfish for which the SAC is designated would not occur, given the location and extent of works in relation to the site.

<p>Change to key elements of the site (e.g. water quality, hydrological regime etc.)</p>	<p>Not significant - There would not be a significant change to key elements of the site. There would be no reduction in habitat area, changes in water and sediment quality, which support the site's designation. Therefore, there would be no changes to the species for which the site is designated as a result of the Scheme.</p>
<p>Describe from the above those elements of the scheme, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known</p>	
<p>The Scheme would not have any significant effects on this SAC.</p>	
<p>Outcome of screening stage (delete as appropriate)</p>	<p>No likely significant effects alone. This site has been screened out of further assessment.</p>
<p>Are the appropriate statutory environmental bodies in agreement with this conclusion (delete as appropriate and attach relevant correspondence)</p>	<p>No – formal consultation in relation to this screening has not yet been undertaken with the relevant statutory bodies.</p>

**Table 6-2: Fens Pools SAC screening matrix**

Scheme Name:	M42 Junction 6 Improvement Scheme	
European Site Consideration:	Fens Pools Special Area of Conservation	
Date:	Author (Name/Organisation)	Verified (Name/Organisation)
August 2018	AECOM	
Description of the scheme: Describe any likely direct, indirect or secondary impacts of the scheme (either alone or in combination with other plans or schemes) on the European Site by virtue of:		
Size and scale (road type and probable traffic volume)	Construction of a 2.4km long dual carriageway link road and associated junction improvements on the strategic and local road networks.	
Landtake	The Scheme would not require any temporary or permanent landtake from this SAC.	
Distance from the European Site or key features of the site (from the edge of the scheme assessment corridor)	The SAC is located 27.5km north-west from the closet point of the Scheme. Great crested newts are the site's key feature.	
Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)	The Scheme does not require resources from this SAC.	
Emissions (e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution)	<p>This SAC does not lie within 200m of the Affected Road Network. The Scheme would therefore not have any adverse impacts on the SAC as a result of air quality changes from vehicle emissions.</p> <p>During the construction phase, the Scheme has potential to generate adverse changes to water quality through water-borne pollution. This includes suspended solids and particulates, hydrocarbons and other chemicals which may arise from construction plant and activities.</p> <p>During operation, runoff toxins associated with traffic such as engine oil, antifreeze and break fluids could contribute to increased heavy metals.</p> <p>Alterations in the supply of water to the SAC (rate or quality) has the potential to impact upon the great crested newt aquatic and terrestrial habitat present. However, due to the distance separating the Scheme from the SAC (over 27km) it is considered unlikely that there would be any adverse effect upon the rate or quality of water supply to this site, either during construction or once operational. Therefore, no impacts as a result of altered</p>	

	water quality are predicted.
Transportation requirements	<p>Construction of the Scheme would require some temporary road closures and diversions. As construction activities would not require diversion routes beyond intermittent closures, there would not be a significant or long term change to traffic volumes along affected routes during this phase.</p> <p>Construction traffic would access the construction areas via the existing road network and would not be of a volume that would result in significant changes in air quality along these routes.</p> <p>No roads within 200m of the SAC are part of the Affected Road Network, and no effects on the SAC from transportation are predicted.</p>
Duration of construction, operation etc.	Subject to the grant of consent, construction of the Scheme is expected to commence in March 2020 and would be completed in early 2024.
Other	The SAC would not be impacted by changes in noise of vibration during the construction or operational phases due to the intervening distance between the site and the Scheme.
Description of Avoidance and/or Mitigation Measures: Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:	
Nature of proposals	No specific mitigation measures are required in relation to this SAC due the intervening distance and the absence of an impact pathway between the Scheme and the site.
Location	N/A
Evidence for effectiveness	N/A
Mechanism for delivery (legal conditions, restrictions or other legally enforceable obligations)	N/A
Characteristics of European Site: A brief description of the European Site should be produced, including information on:	
Name of European Site and its EU code	Fens Pools SAC (UK0030150)
Location and distance of the European Site from the proposed works	<p>Grid reference (centroid) SO 920 888</p> <p>The SAC is located over 27.5km north-west from the closet point of the Scheme.</p>
European Site size	20ha.
Key features of the European Site including the primary reasons for selection and any other qualifying interests (Taken from Natura 2000 Standard Data Form)	The presence of the Annex II species which are a primary reason for selection of the site – great crested newt <i>Triturus cristatus</i> .

Vulnerability of the European Site – any information available from the standard data forms on potential effect pathways (taken from Natura 2000 standard Data form)	<p>The site vulnerabilities comprise:</p> <ul style="list-style-type: none"> <li>▪ grazing;</li> <li>▪ pollution to groundwater (point sources and diffuse sources);</li> <li>▪ other ecosystem modifications;</li> <li>▪ biocenotic evolution, succession; and</li> <li>▪ interspecific floral relations.</li> </ul>
European Site conservation objectives – where these are readily available	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring:</p> <ul style="list-style-type: none"> <li>▪ the extent and distribution of the habitats of the qualifying species;</li> <li>▪ the structure and function of the habitats of the qualifying species;</li> <li>▪ the supporting processes on which the habitats of the qualifying species rely;</li> <li>▪ the populations of qualifying species, and</li> <li>▪ the distribution of qualifying species within the site.</li> </ul>
<p><b>Assessment Criteria: Describe the individual elements of the scheme (either alone or in combination with other plans or schemes) likely to give rise to impacts on the European Site.</b></p>	
<p>None. Due to the intervening distance between the SAC and the Scheme, there would be no adverse effects associated with landtake, or changes in water quality, air quality or noise and vibration.</p>	
<p><b>Initial Assessment: The key characteristics of the site and the details of the European Site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:</b></p>	
Reduction in habitat area	<p>None. The Scheme would not result in any landtake or habitat loss from this SAC.</p>
Disturbance to key species	<p>There would be no disturbance to key species of the SAC as no access to the site is required, and the site is of sufficient distance from the Scheme not to be affected by impacts from pollution, light, noise and vibration.</p>
Habitat or species fragmentation	<p>None. No landtake from the SAC would be required as a result of the Scheme, and no severance or fragmentation of habitats would occur.</p>
Reduction in species density	<p>A reduction in species diversity as a result of the Scheme would not occur as there would be no impacts to the SAC.</p>
Changes in key indicators of conservation value (water quality etc.)	<p>No changes in key indicators of conservation value as there would be no impacts to the SAC.</p>
Climate change	<p>Due to the distance between the Scheme and the SAC, changes in traffic flows would have no effect on the site in relation to climate change.</p>
<p><b>Describe any likely impacts on the European Site as a whole in terms of:</b></p>	

Interference with the key relationships that define the structure of the site	Structure is taken to correspond to the distribution and abundance of habitats that support the qualifying features of the SAC. Interference with the relationships which define the habitats in the SAC would include changes in water and sediment quality, and disturbance from human activities. It is considered that this would not occur as a result of the Scheme due to the intervening distance and lack of hydrological connectivity.
Interference with the key relationships that define the function of the site	Function is taken here to mean the capacity of the SAC to support the species for which it is designated. The quality and extent of habitats within the SAC would not be affected by the Scheme, either alone or in-combination with other plans or projects, and therefore no effect on the function of the SAC is predicted.
Indicate the significance as a result of the identification of impacts set out above in terms of:	
Reduction of habitat area	Not significant - The Scheme would not result in any landtake or habitat loss from this SAC.
Disturbance to key species	Not significant - There would be no disturbance of key species as a result of the construction or operation of the Scheme.
Habitat or species fragmentation	Not significant - There would be no landtake from the SAC and no severance or fragmentation of habitats or species would occur as the Scheme and associated works would be maintained within the highway boundary
Loss	Not significant - There would be no loss of species a result of the construction or operation of the Scheme.
Disruption	Not significant - Construction or operation of the Scheme would not disrupt the structure or function of the key relationships within the SAC.
Disturbance	Not significant - Disturbance to great crested newt for which the SAC is designated would not occur, given the location and extent of works in relation to the site.
Change to key elements of the site (e.g. water quality, hydrological regime etc.)	Not significant - There would not be a significant change to key elements of the site. There would be no reduction in habitat area, changes in water and sediment quality, which support the site's designation. Therefore, there would be no changes to the species for which the site is designated as a result of the Scheme.
Describe from the above those elements of the scheme, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known	
The Scheme would not have any significant effects on this SAC.	
Outcome of screening stage (delete as appropriate)	No likely significant effects alone. This site has been screened out of further assessment.
Are the appropriate statutory environmental bodies in agreement with this conclusion (delete as appropriate and attach relevant correspondence)	No – formal consultation in relation to this screening has not yet been undertaken with the relevant statutory bodies.



**Table 6-3: Cannock Extension Canal SAC screening matrix**

Scheme Name:	M42 Junction 6 Improvement Scheme	
European Site Consideration:	Cannock Extension Canal Special Area of Conservation	
Date:	Author (Name/Organisation)	Verified (Name/Organisation)
August 2018	AECOM	
Description of the scheme: Describe any likely direct, indirect or secondary impacts of the scheme (either alone or in combination with other plans or schemes) on the European Site by virtue of:		
Size and scale (road type and probable traffic volume)	Construction of a 2.4km long dual carriageway link road and associated junction improvements on the strategic and local road networks.	
Landtake	The Scheme would not require any temporary or permanent landtake from this SAC.	
Distance from the European Site or key features of the site (from the edge of the scheme assessment corridor)	The SAC is located 27.1km north-east from the closet point of the Scheme. The Annex II plant species floating water-plantain is the site's key feature.	
Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)	The Scheme does not require resources from this SAC.	
Emissions (e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution)	<p>The northernmost extent of the SAC is located within 200m of the A5; however, this does not form part of the Affected Road Network.</p> <p>During the construction phase, the Scheme has potential to generate adverse changes to water quality through water-borne pollution. This includes suspended solids and particulates, hydrocarbons and other chemicals which may arise from construction plant and activities.</p> <p>During operation, runoff toxins associated with traffic such as engine oil, antifreeze and break fluids could contribute to increased heavy metals.</p> <p>Alteration in the supply of water to the SAC may result in impacts upon the coverage of floating water-plantain; however, due to the distance of the SAC and lack of hydrological connection to the Scheme, any such adverse impacts would not affect the SAC.</p>	
Transportation requirements	<p>Construction of the Scheme would require some temporary road closures and diversions. As construction activities would not require diversion routes beyond intermittent closures, there would not be a significant or long term change to traffic volumes along affected routes during this phase.</p> <p>Construction traffic would access the construction areas via the existing road network and would not be of a volume likely to result</p>	



	in significant changes in air quality along these routes.
Duration of construction, operation etc.	Subject to the grant of consent, construction of the Scheme is expected to commence in March 2020 and would be completed in early 2024.
Other	The SAC would not be impacted by changes in noise of vibration during the construction or operational phases due to the intervening distance between the site and the Scheme.
Description of Avoidance and/or Mitigation Measures: Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:	
Nature of proposals	No specific mitigation measures are required in relation to this SAC due the intervening distance and the absence of an impact pathway between the Scheme and the site.
Location	N/A
Evidence for effectiveness	N/A
Mechanism for delivery (legal conditions, restrictions or other legally enforceable obligations)	N/A
Characteristics of European Site: A brief description of the European Site should be produced, including information on:	
Name of European Site and its EU code	Cannock Extension Canal SAC (UK0012672).
Location and distance of the European Site from the proposed works	Central Grid Reference SK 020 058. The SAC is located 27.1km north-east from the closet point of the Scheme.
European Site size	5ha.
Key features of the European Site including the primary reasons for selection and any other qualifying interests (Taken from Natura 2000 Standard Data Form)	Annex II species that are a primary reason for selection of this site - 1831 Floating water-plantain <i>Luronium natans</i> .
Vulnerability of the European Site – any information available from the standard data forms on potential effect pathways (taken from Natura 2000 standard Data form)	The site vulnerabilities comprise: <ul style="list-style-type: none"> <li>▪ grazing;</li> <li>▪ pollution to groundwater (point sources and diffuse sources);</li> <li>▪ air pollution, air-borne pollutants; and</li> <li>▪ invasive non-native species.</li> </ul>
European Site conservation objectives – where these are readily available	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring: <ul style="list-style-type: none"> <li>▪ the extent and distribution of the habitats of qualifying species;</li> <li>▪ the structure and function of the habitats of qualifying species;</li> <li>▪ the supporting processes on the habitats of qualifying species rely;</li> </ul>

	<ul style="list-style-type: none"> <li>▪ the populations of qualifying species, and,</li> <li>▪ the distribution of qualifying species within the site.</li> </ul>
<p><b>Assessment Criteria:</b> Describe the individual elements of the scheme (either alone or in combination with other plans or schemes) likely to give rise to impacts on the European Site.</p>	
<p>None. Due to the intervening distance between the SAC and the Scheme, there would be no adverse effects associated with landtake, or changes in water quality, air quality or noise and vibration.</p>	
<p><b>Initial Assessment:</b> The key characteristics of the site and the details of the European Site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:</p>	
Reduction in habitat area	None. The Scheme would not result in any landtake or habitat loss from this SAC.
Disturbance to key species	Not significant - There would be no disturbance of key species as a result of the construction or operation of the Scheme.
Habitat or species fragmentation	None. No landtake from the SAC would be required as a result of the Scheme, and no severance or fragmentation of habitats would occur.
Reduction in species density	A reduction in species diversity as a result of the Scheme would not occur as there would be no impacts to the SAC.
Changes in key indicators of conservation value (water quality etc.)	No changes in key indicators of conservation value as there would be no impacts to the SAC.
Climate change	Due to the distance between the Scheme and the SAC, changes in traffic flows would have no effect on the site in relation to climate change.
<p><b>Describe any likely impacts on the European Site as a whole in terms of:</b></p>	
Interference with the key relationships that define the structure of the site	Structure is taken to correspond to the distribution and abundance of habitats that support the qualifying features of the SAC. Interference with the relationships which define the habitats in the SAC would include changes in water and sediment quality, and disturbance from human activities. It is considered that this would not occur as a result of the Scheme due to the intervening distance and lack of hydrological connectivity.
Interference with the key relationships that define the function of the site	Function is taken here to mean the capacity of the SAC to support the species for which it is designated. The quality and extent of habitats within the SAC would not be affected by the Scheme, either alone or in-combination with other plans or projects, and therefore no effect on the function of the SAC is predicted.
<p><b>Indicate the significance as a result of the identification of impacts set out above in terms of:</b></p>	
Reduction of habitat area	Not significant - The Scheme would not result in any landtake or habitat loss from this SAC.
Disturbance to key species	Not significant - There would be no disturbance of key species as a result of the construction or operation of the Scheme.
Habitat or species fragmentation	Not significant - There would be no landtake from the SAC and no severance or fragmentation of habitats or species would occur, as the Scheme and associated works would be maintained within the highway boundary
Loss	Not significant - There would be no loss of species a result of the construction or operation of the Scheme.
Disruption	Not significant - Construction or operation of the Scheme would not disrupt the structure or function of the key relationships within

	the SAC.
Disturbance	Not significant - Disturbance to floating water-plantain for which the SAC is designated would not occur, given the location and extent of works in relation to the site, and the lack of hydrological connectivity.
Change to key elements of the site (e.g. water quality, hydrological regime etc.)	Not significant - There would not be a significant change to key elements of the site. There would be no reduction in habitat area, changes in water and sediment quality, which support the site's designation. Therefore, there would be no changes to the species for which the site is designated as a result of the Scheme.
Describe from the above those elements of the scheme, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known	
The Scheme would not have any significant effects on this SAC.	
Outcome of screening stage (delete as appropriate)	No likely significant effects alone. This site has been screened out of further assessment.
Are the appropriate statutory environmental bodies in agreement with this conclusion (delete as appropriate and attach relevant correspondence)	No – formal consultation in relation to this screening has not yet been undertaken with the relevant statutory bodies.

**Table 6-4: River Mease SAC screening matrix**

Scheme Name:	M42 Junction 6 Improvement Scheme	
European Site Consideration:	River Mease Special Area of Conservation	
Date:	Author (Name/Organisation)	Verified (Name/Organisation)
August 2018	AECOM	
Description of the scheme: Describe any likely direct, indirect or secondary impacts of the scheme (either alone or in combination with other plans or schemes) on the European Site by virtue of:		
Size and scale (road type and probable traffic volume)	Construction of a 2.4km long dual carriageway link road and associated junction improvements on the strategic and local road networks.	
Landtake	The Scheme would not require any temporary or permanent landtake from this SAC.	
Distance from the European Site or key features of the site (from the edge of the scheme assessment corridor)	The SAC is located 27.6km north from the closet point of the Scheme. The Annex I habitat <i>Ranunculion fluitans</i> and <i>Callitricho-Batrachion</i> and the Annex II species spined loach and bullhead are the key features of the site. Other Annex II species present include otter and white-clawed crayfish.	
Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)	The Scheme does not require resources from this SAC	
Emissions (e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution)	<p>Sections of the SAC fall within 200m of roads; however, these do not form part of the Affected Road Network.</p> <p>During the construction phase, the Scheme has potential to generate adverse changes to water quality through water-borne pollution. This includes suspended solids and particulates, hydrocarbons and other chemicals which may arise from construction plant and activities.</p> <p>During operation, runoff toxins associated with traffic such as engine oil, antifreeze and break fluids could contribute to increased heavy metals.</p> <p>Alteration in the supply of water to the SAC has the potential to alter the nature and extent of habitats that represent or support the qualifying features of this designated site. Watercourses within the Order Limits of the Scheme are tributaries of the River Blythe, which flows to the River Tame and then to the River Trent. The River Trent's confluence with the River Tame and the River Mease are located adjacent to each other. The distance separating the Scheme from the SAC exceeds 27km, and the river downstream of the scheme flows separately into the River Trent from the River Mease. On this basis it is considered that there is unlikely to be any hydrological connection between the Scheme and the SAC.</p>	

Transportation requirements	Construction of the Scheme would require some temporary road closures and diversions. As construction activities would not require diversion routes beyond intermittent closures, there would not be a significant or long term change to traffic volumes along affected routes during this phase. Construction traffic would access the construction areas via the existing road network and would not be of a volume likely to result in significant changes in air quality along these routes.
Duration of construction, operation etc.	Subject to the grant of consent, construction of the Scheme is expected to commence in March 2020 and would be completed in early 2024.
Other	The SAC would not be impacted by changes in noise of vibration during the construction or operational phases due to the intervening distance between the site and the Scheme.
Description of Avoidance and/or Mitigation Measures: Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:	
Nature of proposals	No specific mitigation measures are required in relation to this SAC due the intervening distance and the absence of an impact pathway between the Scheme and the site.
Location	N/A
Evidence for effectiveness	N/A
Mechanism for delivery (legal conditions, restrictions or other legally enforceable obligations)	N/A
Characteristics of European Site: A brief description of the European Site should be produced, including information on:	
Name of European Site and its EU code	River Mease SAC (UK0030258).
Location and distance of the European Site from the proposed works	Central Grid Reference SK 260 114. The SAC is located over 27.7km north from the closet point of the Scheme.
European Site size	21.86ha.
Key features of the European Site including the primary reasons for selection and any other qualifying interests (Taken from Natura 2000 Standard Data Form)	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: <ul style="list-style-type: none"> <li>H3260. Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation; Rivers with floating vegetation often dominated by water-crowfoot.</li> </ul> Annex II species that are a primary reason for selection of this site: <ul style="list-style-type: none"> <li>S1163. <i>Cottus gobio</i>; Bullhead; and</li> <li>S1355. <i>Lutra lutra</i>; Otter.</li> </ul> Annex II species present as a qualifying feature, but not a primary reason for site selection: <ul style="list-style-type: none"> <li>S1092. <i>Austropotamobius pallipes</i>; White-clawed (or Atlantic stream) crayfish; and</li> <li>S1149. <i>Cobitis taenia</i>; Spined loach.</li> </ul>
Vulnerability of the European Site – any information available	The site vulnerabilities comprise: <ul style="list-style-type: none"> <li>grazing;</li> <li>pollution to groundwater (point sources and diffuse sources);</li> </ul>



from the standard data forms on potential effect pathways (taken from Natura 2000 standard Data form)	<ul style="list-style-type: none"> <li>▪ air pollution, air-borne pollutants; and</li> <li>▪ invasive non-native species.</li> </ul>
European Site conservation objectives – where these are readily available	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring:</p> <ul style="list-style-type: none"> <li>▪ the extent and distribution of qualifying natural habitats and habitats of qualifying species;</li> <li>▪ the structure and function (including typical species) of qualifying natural habitats;</li> <li>▪ the structure and function of the habitats of qualifying species;</li> <li>▪ the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;</li> <li>▪ the populations of qualifying species, and</li> <li>▪ the distribution of qualifying species within the site.</li> </ul>
Assessment Criteria: Describe the individual elements of the scheme (either alone or in combination with other plans or schemes) likely to give rise to impacts on the European Site.	
None. Due to the intervening distance between the SAC and the Scheme, there would be no adverse effects associated with landtake, or changes in water quality, air quality or noise and vibration.	
Initial Assessment: The key characteristics of the site and the details of the European Site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:	
Reduction in habitat area	None. The Scheme would not result in any landtake or habitat loss from this SAC.
Disturbance to key species	Not significant - There would be no disturbance of key species as a result of the construction or operation of the Scheme.
Habitat or species fragmentation	None. No landtake from the SAC would be required as a result of the Scheme, and no severance or fragmentation of habitats would occur.
Reduction in species density	A reduction in species diversity as a result of the Scheme would not occur as there would be no impacts to the SAC.
Changes in key indicators of conservation value (water quality etc.)	No changes in key indicators of conservation value as there would be no impacts to the SAC.
Climate change	Due to the distance between the Scheme and the SAC, changes in traffic flows would have no effect on the site in relation to climate change.
Describe any likely impacts on the European Site as a whole in terms of:	
Interference with the key relationships that define the structure of the site	Structure is taken to correspond to the distribution and abundance of habitats that support the qualifying features of the SAC. Interference with the relationships which define the habitats in the SAC would include changes in water and sediment quality, and disturbance from human activities. It is considered that this would not occur as a result of the Scheme due to the intervening distance and lack of hydrological connectivity.
Interference with the key relationships that define the function of	Function is taken here to mean the capacity of the SAC to support the species for which it is designated. The quality and extent of habitats within the SAC would not be affected by the Scheme,

the site	either alone or in-combination with other plans or projects, and therefore no effect on the function of the SAC is predicted.
Indicate the significance as a result of the identification of impacts set out above in terms of:	
Reduction of habitat area	Not significant - The Scheme would not result in any landtake or habitat loss from this SAC.
Disturbance to key species	Not significant - There would be no disturbance of key species as a result of the construction or operation of the Scheme.
Habitat or species fragmentation	Not significant - There would be no landtake from the SAC and no severance or fragmentation of habitats or species would occur, as the Scheme and associated works would be maintained within the highway boundary
Loss	Not significant - There would be no loss of species a result of the construction or operation of the Scheme.
Disruption	Not significant - Construction or operation of the Scheme would not disrupt the structure or function of the key relationships within the SAC.
Disturbance	Not significant - Disturbance to the habitats or key species for which the SAC is designated would not occur, given the location and extent of works in relation to the site, the lack of hydrological connectivity and the absence of effects from altered aerial emissions (detailed above).
Change to key elements of the site (e.g. water quality, hydrological regime etc.)	Not significant - There would not be a significant change to key elements of the site. There would be no reduction in habitat area, changes in water and sediment quality, which support the site's designation. Therefore, there would be no changes to the species for which the site is designated as a result of the Scheme.
Describe from the above those elements of the scheme, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known	
The Scheme would not have any significant effects on this SAC.	
Outcome of screening stage (delete as appropriate)	No likely significant effects alone. This site has been screened out of further assessment.
Are the appropriate statutory environmental bodies in agreement with this conclusion (delete as appropriate and attach relevant correspondence)	No – formal consultation in relation to this screening has not yet been undertaken with the relevant statutory bodies.



## 7 In-combination effects on European Sites

- 7.1.1 The Habitats Regulations [REF2] require an assessment of whether the Scheme would result in an adverse effect on a European Site when considered in combination with other plans or projects that may also affect the site.
- 7.1.2 As the screening of the Scheme concluded that the effects of the Scheme acting alone would be of an order not meriting further consideration in the HRA process, the exercise concluded that there would also be no potential for in-combination effects to occur on European Sites.

## 8 Conclusions

- 8.1.1 The HRA screening exercise has confirmed that there is no potential for LSE on the European Sites of Ensor's Pool SAC, Fens Pools SAC, Cannock Extension Canal SAC or the River Mease SAC as a result of the Scheme, either alone or in combination with other plans or projects.
- 8.1.2 As no potential for LSE has been recorded for the identified European Sites at Stage 1 screening, it is concluded that appropriate assessment would not need to be undertaken by the Secretary of State for Transport for any of the identified sites.

## 9 Glossary

**Table 9-1: Glossary of terms and abbreviations used in this report**

Term	Abbreviation	Definition
Affected Road Network	-	Parts of the road network which are identified as likely to be affected by changes in air quality as a result of a development project.
Annex I habitat	-	Natural habitat types of community interest whose conservation requires the designation of special areas of conservation.
Annex II species	-	Animal and plant species of community interest whose conservation requires the designation of special areas of conservation.
Appropriate assessment	-	The consideration of the potential impacts on the integrity of European Sites(s), either alone or in-combination with other plans and projects, with regard to the site's structure and function and its conservation objectives.
Baseline	-	The environment as it appears (or would appear) immediately prior to the implementation of the project together with any known or foreseeable future changes that will take place before completion of the project.
Biodiversity	-	The variety of life in the world or in a particular habitat or ecosystem.
Biocenotic	-	A diverse community of species inhabiting an area of uniform environmental conditions.
Biotic conditions	-	Environmental conditions relating to or resulting from living organisms.
Bryophytes	-	A small, flowerless group of green plants of the division <i>Bryophyta</i> , which comprises mosses and liverworts.
Candidate Special Area of Conservation	cSAC	SAC sites that have been submitted to the European Commission, have yet to be formally adopted.
Carriageway	-	The width of a highway that can be used by motorised vehicles and non-motorised users, formed by a number of lanes.
Chartered Institute of Ecological and Environmental Management	-	The leading professional membership body representing and supporting ecologists and environmental managers in the UK, Ireland and abroad.
Citation	-	A citation details the 'features of interest' for which an ecological site is considered special and has been legally notified.
Climate Change	-	This is a significant variation in meteorological factors (such as temperature and precipitation) over a period of decades; it can be due to natural processes or anthropogenic forcing. Recently the term climate change has been used to describe the anthropogenic changes in climate that will have important social, environmental and economic impacts.
Compensatory measures	-	Measures taken to ensure that the overall Natura 2000 network is protected if imperative reasons of overriding public interest (IROPI) are used to authorise a project despite a negative assessment of adverse effects on integrity.

Competent authority	-	Any Minister, government department, public body, or person holding public office, having a general duty, in the exercise of any of their functions, to have regard to the Habitats Directive.
Connectivity	-	A measure of the availability of the habitats needed for a particular species to move through a given area.
Conservation objectives	-	Objectives set for European Sites, which are needed to help public bodies comply with the law and to protect these sites.
Conservation status	-	The state of a species or habitat including for example, extent, abundance, distribution and their trends.
Consultation	-	The action or process of discussing or engaging with relevant parties.
Culvert	-	A tunnel (pipe or box shaped) that carries a stream or open drain under a road or railway.
Cutting (road)	-	Excavation of earth material to lower the ground level on which a road would be positioned, in order to help to reduce noise and/or visual impact.
Design Manual for Roads and Bridges	DMRB	A set of documents that provide a comprehensive manual which accommodates all current standards, advice notes and other published documents relating to the design, assessment and operation of trunk roads (including motorways).
Development Consent Order	DCO	The consent for a Nationally Significant Infrastructure Project required under the Planning Act 2008.
Earthworks	-	The removal or placement of soils and rocks such as in cuttings, embankments and environmental mitigation, including the in-situ improvement of soils/rocks to achieve the desired properties.
Ecosystem	-	Biological community of interacting organisms (e.g. plants and animals) and their environment.
Effect	-	Term used to express the consequence of an impact (expressed as the 'significance of effect'), which is determined by correlating the magnitude of the impact (or change) to the importance, value or sensitivity of the receptor or resource, in accordance with defined significance criteria.
Embankment	-	Artificially raised ground, commonly made of earth material, such as stone, on which the carriageway is laid.
Enhancement	-	A measure that is over and above what is required to mitigate the adverse effects of a project.
Environmental Impact Assessment	-	The statutory process through which the likely significant effects of a development project on the environment are identified and assessed.
Environmental Statement	-	A document produced in accordance with the EIA Directive as transported into UK law by the EIA Regulations to report the results of an EIA.
European Commission	-	Institution of the European Union, responsible for proposing legislation and implementing decisions.
European Economic Area States	-	28 states are members of the European Economic Area, which allows for the free movement of goods, services and capital within the internal market of the European Union.
European Site	-	The generic term used to describe the sites considered by the Habitats Regulations Assessment. Also referred to

		as Natura 2000 sites.
European Union	EU	A political and economic union of 28 Member States located primarily in Europe.
Favourable Conservation Status	-	A legal concept in the Habitats Directive, which states that "...conservation status will be taken as 'favourable' 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 habitats, and 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."
Fragmentation (ecological)	-	The breaking up of a habitat, ecosystem or land use types into smaller parcels.
Groundwater	-	All water which is below the surface of the ground in the saturation zone (below the water table) and in direct contact with the ground or subsoil.
Habitat	-	The natural home or environment of an animal, plant, or other organism.
Habitats Directive	-	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna.
Habitats Regulations	-	The Conservation of Habitats and Species Regulations 2017.
Habitats Regulations Assessment	HRA	An assessment of projects (or plans) potentially affecting European Sites in the UK, required under the Habitats Directive and Regulations. Also known as an assessment of implications on European Sites.
Heavy metals	-	Metals with relatively high densities, atomic weights, or atomic numbers.
Hectare	ha	A metric unit of measurement, equal to 2.471 acres or 10,000 square metres.
Hydrocarbons	-	A compound of hydrogen and carbon, such as any of those which are the chief components of petroleum and natural gas.
Hydrological connectivity	-	Transfer of, matter, energy and/or organisms between and along surface and groundwater systems.
Hydrology	-	The study of water movement through the environment which also seeks to predict the behaviour of water bodies under various circumstances.
Impact	-	Change that is caused by an action; for example, land clearing (action) during construction which results in habitat loss (impact).
Imperative Reasons of Overriding Public Interest	IROPI	Reasons used to authorise a project despite a negative assessment of adverse effects on integrity of a European Site.
In-combination effect	-	A term used to describe the combination of effects resulting from a project and other development plans or projects, when considered together.
Interchange	-	A term used to describe a grade separated junction that provides free flow from one mainline to another.
Interim Advice Note	-	Guidance notes issued by Highways England which incorporate amendments or additions to the Design Manual for Roads and Bridges.
Interspecific	-	Existing or occurring between different species.
Invasive (non-	-	Any species that does not occur naturally in an area that

native) species		has the ability to spread causing damage to the environment.
Junction	-	A place where two roads meet, regardless of design or layout.
Kilometre	km	A unit of measurement equal to 1000 metres.
Landtake	-	The extent of land required temporarily or permanently to construct, operate and maintain a development project.
Likely Significant Effect	LSE	Any effect that may reasonably be predicted as a consequence of a project that may undermine a European Sites' conservation objectives.
Metre	m	A unit of measurement equal to 100 centimetres.
Mitigation	-	Measures intended to avoid, reduce and, where possible, remedy significant adverse environmental effects.
Motorway	-	A special type of road reserved for motorised traffic only, the numbers of which are prefixed with the letter 'M'.
Nationally Significant Infrastructure Project	NSIP	A type of project listed in the Planning Act 2008, which must be consented by a Development Consent Order.
National Infrastructure Planning	-	A website containing details of all proposed Nationally Significant Infrastructure Projects within England and Wales, managed by the Planning Inspectorate.
Natura 2000	-	A network of core breeding and resting sites for rare and threatened species, and some rare natural habitat types which are protected in their own right.
Natural England	-	Government adviser for the natural environment in England.
Nitrate	-	A chemical compound that includes nitrogen and oxygen frequently used as fertiliser in agriculture.
Nitrogen dioxide	NO <sub>2</sub>	A brown gas that is released into the atmosphere when fossil fuels are burned (for example, petrol or diesel in a car engine).
Overbridge	-	A bridge crossing over a transport corridor (e.g. a highway).
Particulates	-	Small objects that can remain in suspension in the air and in water, and eventually settle and accumulate.
Pathways	-	The routes by which pollutants are transmitted through air, water, soils, plants and organisms to their receptors.
Potential Special Protection Areas	pSPA	SPA sites that are currently in the process of being classified.
Possible Special Protection Areas	pSAC	SAC sites that are currently in the process of being classified.
Planning Inspectorate	-	An executive agency with responsibilities for planning appeals, national infrastructure planning applications, local plan examinations and other planning-related casework in England and Wales.
Plainly established and uncontroversial (mitigation measures)	-	Good practice mitigation measures that have a high probability of success.
Scheme	-	The M42 Junction 6 Improvement Scheme.
Qualifying feature	-	Habitats and/or species of importance and for which a European Site is notified.
Ramsar Convention	-	The Convention on Wetlands of International Importance especially as Waterfowl Habitat which provides the framework for national action and international



		cooperation for the conservation and wise use of wetlands and their resources.
Ramsar site	-	Wetlands of international importance, designated under the Ramsar Convention.
Resource	-	A defined but generally collective environmental feature usually associated with soil, water, air, climatic factors, landscape, material assets, including the architectural and archaeological heritage that has potential to be affected by a project.
Runoff	-	The flow of water over the ground surface.
Screening (HRA)	-	The process of identifying potentially relevant European Sites, and whether the likely impacts of a project upon the qualifying features of the site, either alone or in-combination with other plans and projects, are likely to be significant.
Scoping (EIA)	-	The process of identifying the issues to be addressed by the Environmental Impact Assessment process. It is a method of ensuring that an assessment focuses on the important issues and avoids those that are considered to be not significant.
Scoping (HRA)	-	The process of identifying the issues to be addressed by the HRA Stage 1 assessment.
Scoping Opinion	-	The written opinion of the relevant authority, following a request from the applicant for planning permission, as to the information to be provided in an Environmental Statement.
Scoping Report	-	A report which records the outcomes of the scoping process and is typically submitted as part of a formal request for a Scoping Opinion.
Secretary of State	-	The cabinet minister who (among other things) ultimately determines applications for Development Consent Orders.
Severance (habitat)	-	The splitting of an area of habitat into more than one part.
Solihull Metropolitan Borough Council	-	The local authority within whose jurisdiction the Scheme would be implemented.
Special Area of Conservation	SAC	An area which has been identified as being important for a range of vulnerable habitats, plant and animal species within the European Union and are designated under the Habitats Directive.
Special Protection Area	SPA	A Site designated under the Birds Directive due to their international importance for the breeding, feeding, wintering, or the migration of, rare and vulnerable species of birds.
Statutory bodies	-	A government department, agency or body set up to consider evidence and make judgements in a particular field of activity.
Suspended solids	-	Small solid particles which remain in suspension in water, the quantity and type of which can be used as an indicator of water quality.
Surface water	-	Waters including rivers, lakes, loughs, reservoirs, canals, streams, ditches, coastal waters and estuaries.
Terrestrial	-	Of, or on, dry land.
Transboundary	-	Crossing into other European Economic Association States.

## 10 References

**Table 10-1: References used in this report**

Reference Number	Source
REF1	Planning Act 2008. HMSO (2008).
REF2	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Official Journal of the European Union (1992).
REF3	The Conservation of Habitats and Species Regulations 2017. The Stationary Office Limited (2017).
REF4	The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009. The Stationary Office Limited (2009).
REF5	M42 Junction 6 Improvement Scheme: Environmental Impact Assessment Scoping Report. Highways England (2017).
REF6	Scoping Opinion: Proposed M42 Junction 6 Improvement Scheme. Planning Inspectorate (2017).
REF7	Advice Note Ten – Habitats Regulations Assessment relevant to Nationally Significant Infrastructure Projects. The Planning Inspectorate (2017).
REF8	Design Manual for Roads and Bridges, Volume 11, Section 4, Part 1, HD44/09. Assessment of implications (of highways and/or roads projects) on European Sites (including Appropriate Assessment). Highways Agency (2009).
REF9	Interim Advice Note 141/11 Assessment of Implications (of Highways and/or Roads Projects) on European Sites (Including Appropriate Assessment) and the Planning Act 2008. Highways Agency (2011).
REF10	Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive. European Commission (2001).
REF11	Solihull Metropolitan Borough Council website. Accessed August 2018. <a href="http://www.solihull.gov.uk/planningservices">http://www.solihull.gov.uk/planningservices</a> .
REF12	National Infrastructure Planning website. Accessed August 2018. <a href="https://infrastructure.planninginspectorate.gov.uk/projects/">https://infrastructure.planninginspectorate.gov.uk/projects/</a> .
REF13	Solihull Local Plan (adopted 3rd December 2013). Accessed August 2018. <a href="http://www.solihull.gov.uk/Resident/Planning/appealsenforcement/planmaking/ldf/localplan">http://www.solihull.gov.uk/Resident/Planning/appealsenforcement/planmaking/ldf/localplan</a> .
REF14	Case C-323/17 People Over Wind, Peter Sweetman v Coillte Teoranta – 12 April 2018. Accessed August 2018. <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX%3A62017CJ0323&amp;qid=1524824107742&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX%3A62017CJ0323&amp;qid=1524824107742&amp;from=EN</a> .

## Appendix A: Consultation

This section provides copies of the relevant correspondence from Natural England and the Planning Inspectorate in relation to potential effects on European Sites.

Date: 06 December 2017  
Our ref: 229853



**BY EMAIL ONLY**  
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3900

Dear Ms Boyle,

**Environmental Impact Assessment Scoping consultation Regulations 2017(the EIA Regulations) – Regulations 10 and 11: Application by Highways England for an Order granting Development Consent for the M42 Junction 6 Improvement Scheme**

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated 25 October 2017. We are sorry for the delay in replying. Natural England notes this response is provided after the consultation period and acknowledges it will be forwarded to the applicant for information only.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

**Proposed scope of the EIA**

Natural England are satisfied that the proposed approach to EIA adequately addresses those themes and issues within our remit. Moreover, while recognising the time constraints applying to NSIPs, the iterative nature of EIA provides in principle scope for continued dialogue as the assessment progresses.

***Aspects of the environment likely to be significantly affected and interrelationships between these***

Natural England is satisfied that the report indicates those aspects of the environment within our remit that are likely to be significantly affected – landscape (protected areas), soils and land quality, internationally and nationally designated sites and protected and priority species. Regarding climate change<sup>1</sup> we acknowledge the approach described in the report whereby the consultants propose to address this over-arching theme through the relevant contributory themes and issues.

***Description of the likely significant effects of the development on the environment – direct, indirect, secondary, cumulative, short/medium/long term, permanent & temporary, positive and negative.***

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<sup>1</sup> Paragraph 14.1.2

We offer the following comments on 'landscape', 'soils and land quality' and 'protected species'. We comment separately below on the assessment of likely significant effects on 'Internationally and nationally designated sites':

### Soils and land quality

Soil is a finite resource that fulfils many important functions and services (ecosystem services) for society, for example as a growing medium for food, timber and other crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution. It is therefore important that the soil resources are protected and used sustainably.

The following issues should be addressed as part of the Environmental Statement:

1. The degree to which soils are going to be disturbed/harmed as part of this development and whether 'best and most versatile' agricultural land is involved. Para 9.5.2 indicates that further clarity is needed on this point as Grade 3 land may or may not comprise best and most versatile land. For further information on the availability of existing agricultural land classification (ALC) information see [www.magic.gov.uk](http://www.magic.gov.uk). Natural England Technical Information Note 049 - [Agricultural Land Classification: protecting the best and most versatile agricultural land](#) also contains useful background information.

2. Natural England acknowledge that an agricultural land classification soil survey will be carried out. This should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, ie 1.2 metres.

3. The Environmental Statement should provide details of how any adverse impacts on soils can be minimised. Further guidance is contained in the *Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites*.

### Protected Species

Natural England are aware and are satisfied with the unavailable surveys as highlighted<sup>2</sup> and as part of an ongoing dialogue with the applicant's consultant will examine and survey results and proposed mitigation, compensation and potential net gain opportunities prior to ES submission.

### **Internationally and nationally designated sites**

The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (eg designated Special Areas of Conservation and Special Protection Areas) fall within the scope of the Conservation of Habitats and Species Regulations 2010. In addition paragraph 118 of the National Planning Policy Framework requires that potential Special Protection Areas, possible Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites.

Natural England acknowledge and support the reports scope of statutory nature designations<sup>3</sup>.

### Air quality

We note and welcome the report's reference to the assessment of air quality issues arising from traffic generation during the construction and operational lifetime of the scheme and offer the following comments:

1. In terms of the methodology for screening and the need for any subsequent levels of assessment the relevant methodology is set out in the Highways Agency 'Design Manual for Roads and Bridges – Volume 11'<sup>4</sup>. The Air Pollution Information System (APIS) provides specific information on the air quality theme for each designated site and should be factored into the

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<sup>2</sup> Paragraph 8.5

<sup>3</sup> Table 8.1 pp.71

<sup>4</sup> Paragraph 5.9.2 pp 44.

methodology when establishing the 'baseline'. I refer to para 5.9.6 and reference to 'special ecological sites',

2. With regard to the construction phase the focus on NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub> set out at para 5.7.1 should be reviewed with regard to its suitability for ecological receptors including designated sites in the context of the APIS information (site relevant critical loads).

3. In respect of the operational phase we note **no** proposed use of Institute of Air quality Management (IAQM) and Environmental Protection UK (EPUK) guidance and criteria. As for the construction phase we welcome clarity regarding suitability of the assessment methodology for ecological receptors such as designated sites<sup>5</sup>.

4. In terms of the scope of biodiversity assets to be considered in addition to nationally and internationally designated sites we refer you to the National Planning Statement (NPS) and NPPF. The following excerpt from the NPS refers:

### ***Applicant's assessment***

**5.22** *Where the project is subject to EIA the applicant should ensure that the environmental statement clearly sets out any likely significant effects on internationally, nationally and locally designated sites of ecological or geological conservation importance (including those outside England) on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity and that the statement considers the full range of potential impacts on ecosystems.*

**5.23** *The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests*

Please see all the way down to para 5.38 of this NPS.

While Natural England will provide advice on the outcomes from your assessment in relation to nationally and internationally designated sites, those outcomes relating to non-statutory sites and priority habitats and species will be of interest to the local planning authorities involved in the project.

### **Landscape and visual impacts**

Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography. The European Landscape Convention places a duty on Local Planning Authorities to consider the impacts of landscape when exercising their functions.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using [landscape assessment methodologies](#). We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

Natural England supports the publication *Guidelines for Landscape and Visual Impact Assessment*, produced by the Landscape Institute and the Institute of Environmental Assessment and

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<sup>5</sup> Paragraph 5.9.17 pp46



Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

The assessment should refer to the relevant [National Character Areas](#) which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

### **Regionally and Locally Important Sites**

We note and welcome the report's consideration of impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geo-conservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact James Hughes on 07827 808248. For any new consultations, or to provide further information on this consultation please send your correspondences to [consultations@naturalengland.org.uk](mailto:consultations@naturalengland.org.uk).

We really value your feedback to help us improve the service we offer. We have attached a feedback form to this letter and welcome any comments you might have about our service.

Yours sincerely

James Hughes  
Lead Adviser  
West Midlands Planning Team

# **SCOPING OPINION:**

## **Proposed M42 Junction 6 Improvement Scheme**

**Case Reference: TR010027**

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Adopted by the Planning Inspectorate (on behalf of the Secretary of State for Communities and Local Government) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

**December 2017**

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### **APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED**

### **APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES**

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## 1. INTRODUCTION

### 1.1 Background

- 1.1.1 On 25 October 2017, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from Highways England (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed M42 Junction 6 Improvement (the Proposed Development).
- 1.1.2 In accordance with Regulation 10 of the EIA Regulations, an Applicant may ask the SoS to state in writing its opinion *'as to the scope, and level of detail, of the information to be provided in the environmental statement'*.
- 1.1.3 This document is the Scoping Opinion (the Opinion) provided by the Inspectorate on behalf of the SoS in respect of the Proposed Development. It is made on the basis of the information provided in the Applicant's report entitled 'M42 Junction 6 Improvement Scheme – Environmental Impact Assessment Scoping Report' (the Scoping Report). This Opinion can only reflect the proposals as currently described by the Applicant. The Scoping Opinion should be read in conjunction with the Scoping Report.
- 1.1.4 The Applicant has notified the SoS under Regulation 8(1)(b) of the EIA Regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development is determined to be EIA development.
- 1.1.5 Regulation 10(9) of the EIA Regulations requires that before adopting a scoping opinion the Inspectorate must take into account:
- (a) *any information provided about the proposed development;*
  - (b) *the specific characteristics of the development;*
  - (c) *the likely significant effects of the development on the environment;*  
*and*
  - (d) *in the case of a subsequent application, the environmental statement submitted with the original application.*
- 1.1.6 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.
- 1.1.7 The Inspectorate has consulted on the Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion and are included at Appendix 2.



- 1.1.8 The points addressed by the Applicant in the Scoping Report have been carefully considered and use has been made of professional judgement and experience in order to adopt this Opinion. It should be noted that when it comes to consider the ES, the Inspectorate will take account of relevant legislation and guidelines. The Inspectorate will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with the application for a Development Consent Order (DCO).
- 1.1.9 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (eg on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or associated development or development that does not require development consent.
- 1.1.10 Regulation 10(3) of the EIA Regulations states that a request for a scoping opinion must include:
- (a) *a plan sufficient to identify the land;*
  - (b) *a description of the proposed development, including its location and technical capacity;*
  - (c) *an explanation of the likely significant effects of the development on the environment; and*
  - (d) *such other information or representations as the person making the request may wish to provide or make.*
- 1.1.11 The Inspectorate considers that this has been provided in the Scoping Report. The Inspectorate is satisfied that the Scoping Report encompasses the relevant aspects identified in the EIA Regulations.
- 1.1.12 In accordance with Regulation 14(3)(a), where a scoping opinion has been issued in accordance with Regulation 10, an ES accompanying an application for an order granting development consent should be based on *'the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion)'*.

## **1.2 The Planning Inspectorate's Consultation**

- 1.2.1 In accordance with Regulation 10(6) of the EIA Regulations the Inspectorate has consulted the consultation bodies before adopting a scoping opinion. A list of the consultation bodies formally consulted by the Inspectorate is provided at Appendix 1. The consultation bodies have been notified under Regulation 11(1)(a) of the duty imposed on them by Regulation 11(3) of the EIA Regulations to make information available to the Applicant relevant to the preparation of the ES. The Applicant should

note that whilst the list can inform their consultation, it should not be relied upon for that purpose.

- 1.2.2 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided, along with copies of their comments, at Appendix 2, to which the Applicant should refer in undertaking the EIA.
- 1.2.3 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.2.4 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the Applicant and will be made available on the Inspectorate's website. The Applicant should also give due consideration to those comments in carrying out the EIA.

### **1.3 Article 50 of the Treaty on European Union**

- 1.3.1 On 23 June 2016, the United Kingdom (UK) held a referendum and voted to leave the European Union (EU). On 29 March 2017 the Prime Minister triggered Article 50 of the Treaty on European Union, which commenced a two year period of negotiations regarding the UK's exit from the EU. There is no immediate change to legislation or policy affecting national infrastructure. Relevant EU Directives have been transposed into UK law and those are unchanged until amended by Parliament.

## **2. THE PROPOSED DEVELOPMENT**

### **2.1 Introduction**

2.1.1 The following is a summary of the information on the Proposed Development and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the Proposed Development and the potential receptors/resources.

### **2.2 Description of the Proposed Development**

2.2.1 The Applicant's description of the Proposed Development, its location and technical capacity (where relevant) is provided in Scoping Report Section 1 (overview) and in more detail in Sections 2 and 3.

2.2.2 The proposed application site lies to the west of the M42, in the area of green belt between Junction 5 and Junction 6. The M42 Junction 6 connects the motorway network to the A45 Coventry Road which provides access between Birmingham to the west and Coventry to the east. Birmingham International Network Railway Station, the National Exhibition Centre (NEC), and Birmingham Airport lie just to the north-west of Junction 6. The National Motorcycle Museum and National Conference Centre lie just to the south-east. Junction 6 provides the main access to these facilities as well as the Birmingham Business Park further to the north and Jaguar Land Rover to the west near Solihull. The Proposed Development lies approximately 9 miles east from Birmingham city centre, with the nearest town being Solihull.

2.2.3 The Proposed Development is an improvement of the M42 at Junction 6, to include the creation of a new 'dumbbell' junction approximately 1.8km south of the existing Junction 6. It also includes a new 2.4km dual carriageway link road from the new junction to the Clock Interchange (an existing junction to the west of Junction 6 along the A45), upgrades and modifications to Junction 6 and the Clock Interchange, as well as realignments and improvements to local roads to the west of the M42 in proximity to the new dual carriageway link road.

2.2.4 The proposed application site lies within green belt, and a number of other facilities/assets occupy land in the immediate area. The proposed application site largely comprises existing motorway and road infrastructure, with the area of the proposed link road situated within undeveloped open land, predominantly in arable use.

## 2.3 The Planning Inspectorate's Comments

### Description of the Proposed Development

- 2.3.1 The Scoping Report provides a description of the Proposed Development, within Section 2.6 and discusses elements that are integrated into the design, for example drainage features and landscaping. Paragraphs 3.6.5 to 3.6.13 of the Scoping Report provide information under the sub-heading 'Detailed Description'. This includes information on the junction slip roads and alignments in the Preferred Route Announcement (PRA). General information on the horizontal and vertical alignments of the proposed link road and new slip roads is provided, for example it is stated that the new link road would be 2.4km in length and predominately positioned in a cutting. The 'proposed scheme drawings' (Figures HE554185-ACM-GEN-M42\_GEN\_ZZ\_ZZ-DR-CH-0001 to 0008) show the proposed layout with marked chainage points (distance along the carriageway) and indicates where embankments and cuttings will form part of the proposals. The Inspectorate notes that at this time precise information regarding the size of the whole development, including land-take, vertical, and horizontal dimensions is not provided. The Inspectorate considers that this information should be provided in the ES. If precise information relating to the design is not known at the point of application the ES should clearly explain the parameters used to address this and explain why flexibility is required.
- 2.3.2 The Scoping Report explains that the precise land-take to be included in the DCO boundary will be refined in light of construction land take requirements, earthworks design, ecological compensation areas and flood compensation areas. The Scoping Report states that the 'red line boundary' (taken to mean the proposed application site) figure (see 2.3.1 above) is intended to show the worst case scenario and 'aims to capture candidate sites associated with these requirements'. Paragraph 4.3.12 states that the land-take requirements will be confirmed in the ES. The Scoping Report also mentions that an application for a motorway service area (MSA) is known to have been submitted to Solihull Metropolitan Borough Council (SMBC). The Inspectorate is not clear what is meant by the statement in Chapter 1 paragraph 1.2.3 that if the MSA is granted consent it would '..integrate into the proposed scheme works'. The Inspectorate considers that the interaction between the Proposed Development and the proposed MSA should be assessed in the cumulative effects assessment in the ES.
- 2.3.3 There is very limited information provided in the Scoping Report relating to the physical characteristics of the Proposed Development in terms of demolition works and construction land-take, and the use and removal of soils and other materials. The Inspectorate notes that Section 4 of the Scoping Report (EIA Approach) does identify demolition works, construction facilities and accesses, site clearance activities, ground and excavation works, works to services and utilities, and construction emissions as being part of the Proposed Development (and as potential sources of environmental impact). The Inspectorate considers that the

ES should take these activities into account within the various aspect assessments where relevant.

- 2.3.4 The Scoping Report states in Section 4.12 that decommissioning of the Proposed Development is not envisaged, so will not be included in the EIA. The Inspectorate considers that this is a reasonable approach taking into account the specific characteristics of the Proposed Development as a whole. However, the Inspectorate considers that any decommissioning associated with dismantling and replacing particular elements of the Proposed Development once they reach the end of their design life should be assessed where significant effects are likely to occur.
- 2.3.5 The ES should include a description of the nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) to be used during construction. The ES should describe and assess the likely significant effects associated with any particular technologies or substances proposed to be used for the construction phase.
- 2.3.6 Section 4 of the Scoping Report refers to the proposed DCO red line boundary being shown on Figure 1.1, although it is noted that the figure showing the red line boundary is not labelled as such (it is labelled 'M42 Junction 6 Redline Boundary'). The Inspectorate requests the Applicant to ensure that all relevant figures in the ES are labelled clearly and include a north arrow and map scale.

### **Alternatives**

- 2.3.7 The EIA Regulations require that the Applicant provide 'A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects'.
- 2.3.8 The Inspectorate would expect to see a discrete section in the ES that provides details of the alternatives considered and the reasoning for the selection of the chosen option(s), including a comparison of the environmental effects.
- 2.3.9 The Inspectorate notes the inclusion of Section 3 'Scheme History and Alternatives' in the Scoping Report, and the summary of information contained in Table 3.1 of the Scoping Report, which compares the alternatives in terms of environmental effects. Where environmental effects have informed the choice of options this should be clearly explained; for example, when comparing options in paragraph 3.5.5 it is not clear why the only option which would have a direct effect on the GAA sports fields is the one taken forward. The ES should set out the main reasons for selecting the chosen option taking into account the effects of the Proposed Development on the environment.

### **Flexibility**

- 2.3.10 The Applicant's attention is drawn to the Inspectorate's Advice Note 9 'Using the 'Rochdale Envelope'<sup>1</sup>, which provides additional details on the recommended approach, and the Inspectorate notes the reference to this advice in paragraph 1.2.5 with respect to the proposed DCO boundary presented.
- 2.3.11 The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons.
- 2.3.12 The Proposed Development parameters will need to be consistently and clearly defined in both the draft DCO (dDCO) and in the accompanying ES. At the time of application, any Proposed Development parameters should not be so wide-ranging as to effectively represent different developments. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed Development in the ES must not be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations.
- 2.3.13 It should be noted that if the Proposed Development changes substantially during the EIA process and prior to submission of the application the Applicant may wish to consider requesting a new scoping opinion.

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<sup>1</sup> Advice Note nine: Using the Rochdale Envelope. 2012. Available at:  
<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>



## **3. EIA APPROACH**

### **3.1 Introduction**

- 3.1.1 This section contains the Inspectorate's specific comments on the scope, and level of detail of information to be provided in the Applicant's ES. General advice on the presentation of an ES is provided in the Inspectorate's Advice Note 7 'Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping'<sup>2</sup> and associated appendices.
- 3.1.2 Aspects/matters are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the Inspectorate. The ES should be based on the Scoping Opinion in so far as the Proposed Development remains materially the same as the Proposed Development described in the Scoping Report. The Inspectorate notes that it is the Applicant's intention to include all of the aspects/matters detailed in IAN 125/15 in the ES, along with a number of relevant aspect/matters set out in the EIA Regulations. This approach is explained in paragraph 4.4.2 of the Scoping Report (please note this paragraph incorrectly refers to Schedule 5, rather than Schedule 4, of the EIA Regulations). The Inspectorate is content that this should not prevent the Applicant from subsequently agreeing with the relevant consultees to scope such aspects/matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.
- 3.1.3 Where relevant, the ES should provide reference to how the delivery of measures proposed to prevent/minimise adverse effects is secured through DCO requirements (or other suitably robust methods) and whether relevant consultees agree on the adequacy of the measures proposed.

### **3.2 Relevant National Policy Statements (NPSs)**

- 3.2.1 Sector-specific NPSs are produced by the relevant Government Departments and set out national policy for NSIPs. They provide the framework within which the Examining Authority (ExA) will make their recommendations to the SoS and include the Government's objectives for the development of NSIPs. The NPSs may include environmental

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<sup>2</sup> Advice Note seven: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping. Available from:  
<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

requirements for NSIPs, which Applicants should address within their ES as relevant.

- 3.2.2 The designated NPS relevant to the highways sector is the National Policy Statement for National Networks (NPSNN). The Inspectorate notes the intention stated in the Scoping Report in paragraph 4.2.3 for the EIA approach to take account of this policy document.

### **3.3 Scope of Assessment**

#### **General**

- 3.3.1 The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:
- to demonstrate how the assessment has taken account of this Opinion;
  - to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;
  - to set out the proposed mitigation and/or monitoring measures including cross-reference to the means of securing such measures (eg a dDCO requirement); and
  - to describe any remedial measures that are identified as being necessary following monitoring.
- 3.3.2 The Inspectorate understands that traffic modelling will be used to underpin both the design of the Proposed Development, and to assess its likely effects. The ES should clearly explain how traffic and transport modelling has been applied to the assessments in the ES. The results of the traffic modelling will directly influence other aspect assessments including but not limited to noise and air quality. Tamworth Borough Council in their scoping consultation response have advised on issues relevant to the traffic assessment, and Royal Mail, in their response, have provided baseline information and a detailed summary of their concerns in relation to traffic effects. Both of these responses are provided in Appendix 2 of this Opinion.
- 3.3.3 The Inspectorate considers that where a DCO application includes works described as 'associated development', that could themselves be defined as an improvement of a highway, the Applicant should ensure that the ES accompanying that application distinguishes between effects that primarily derive from the integral works which form the (or part of the) proposed NSIP; and those that primarily derive from the works described as associated development. This could be shown, for example, in a suitably compiled summary table. This will have the benefit of giving greater confidence to the Inspectorate that what is proposed is not in fact an additional NSIP defined in accordance with s22 of the PA2008.
- 3.3.4 The Inspectorate notes that it is proposed in Chapter 4 Table 4.1 to consider effects on human health in the Air Quality, Noise and Vibration,

People and Communities, and Road Drainage and Water Environment ES aspect chapters. The Inspectorate has had regard to the information provided in the Scoping Report and has taken into account the nature and characteristics of the Proposed Development and is generally content with this approach but considers that human health effects may also be relevant to soil handling and waste management, which is understood to be assessed within the 'Geology and Soils' and the 'Materials' chapters respectively. Public Health England (PHE) have also provided comment in their scoping consultation response, contained in Appendix 2 of this Opinion, on the approach to assessing effects on human health.

- 3.3.5 National Grid, in their scoping consultation response, have supplied plans showing where high voltage electricity overhead transmission lines exist in the vicinity of the Proposed development. In addition, Cadent Gas Limited, in their scoping consultation response, have supplied plans showing where gas pipelines and equipment are present. The Applicant should take the location of these assets into account in relevant assessments to the ES.
- 3.3.6 The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved. The ES should also identify where assumptions have been made with respect to any modelling carried out, for example the traffic modelling, and the implications for the outcome of the assessments.
- 3.3.7 With reference to Table 16.2 in the concluding chapter of the Scoping Report which sets out the proposed ES structure, key structural elements that would be expected in the ES have been omitted. For example, under 'Chapter 5: EIA methodology and Consultation' only the consultation is mentioned, and under Chapters 6 to 16 no mention is made of scope or study area, or aspect-specific methodologies. In addition, the text suggests that only significant effects will be described rather than the identification of all potential effects followed by a determination of significance. The Inspectorate considers that the ES should follow a logical and consistent structure and these elements should be taken into account within that structure.
- 3.3.8 Some acronyms and terms used in the Scoping Report are not explained in the text or included in the 'Abbreviations' list, for example, 'activity data', 'emissions factor', 'Hz', 'ppv', 'mms<sup>-1</sup>', CIRIA; or not explained on first use, for example, 'BMVL'. The ES should ensure that acronyms used are appropriately explained on first use. If a glossary is provided then it should be referenced appropriately in the text.
- 3.3.9 It is noted from the Scoping Report that no European nature conservation sites have been found within the vicinity of the Proposed Development (Chapter 8) and that an assessment under The Conservation of Habitats and Species Regulations 2010 (as amended) is unlikely to be required. The Inspectorate advises the Applicant to ensure that this remains the case in light of the recent coming into force of the Conservation of

Habitats and Species Regulations 2017. As a general recommendation, an up to date Habitats Regulations Assessment (HRA) screening report should be produced (the Inspectorate notes the assessment referred to in paragraph 8.9.2) and should be referenced in the ES. The HRA report should in turn contain references to where the information on which it is based is to be found in the ES.

### **Baseline Scenario**

- 3.3.10 The ES should include a description of the baseline scenario with and without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.
- 3.3.11 The Inspectorate notes the information within Section 4.7 of the Scoping Report, which sets out the baseline year and 'future baseline' years and provides explanation for how the changing baseline between the time of assessment and anticipated time of operation will be taken into account in the assessments. However, in subsequent sections of the Scoping Report the future baselines are alternatively described in terms of the 'opening year' and 'design year' 'Do-Minimum and Do-Something'. The intended approach should be defined in the ES and carefully followed and adopted consistently across each aspect chapter of the ES. Where any individual aspect assessments depart from that approach it should be explained in the ES.
- 3.3.12 The Scoping Report states that the precise land-take to be included in the DCO application boundary remains to be further refined. This has implications in terms of defining an appropriate study area for certain aspects/matters, for example, cultural heritage and landscape and visual impacts assessments. More detailed comments relating to this point are provided below in Section 4 to this opinion.

### **Forecasting methods or evidence**

- 3.3.13 The ES should contain the timescales upon which the surveys which underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the ES (with confirmation that these timescales apply to all chapters), or in each technical chapter.
- 3.3.14 The Inspectorate expects the ES to include a chapter setting out the overarching methodology for the EIA, which clearly states which effects are determined to be 'significant' and 'non-significant' for the purposes of the EIA. Any departure from that methodology should be described in individual aspect assessment chapters.
- 3.3.15 The Inspectorate recommends that the Applicant fully describes and justifies in the ES the methodologies they have used for the assessments, in particular where these depart from standard guidance or where no

standard guidance exists. The Inspectorate considers that the ES should present the specific assessment methodology relevant to each individual aspect/matter assessed. If an overarching methodology is applied this should be explained with relevant cross reference, and any departures from the prescribed methodology should be explained and justified. It would also be of benefit to provide figures in the ES that show the extent of the study areas used for the assessments and identify the receptors.

- 3.3.16 The Inspectorate considers that relevant surveys which inform the assessments should be appended to the ES.

### **Residues and emissions**

- 3.3.17 The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into relevant aspect assessments.

- 3.3.18 The Inspectorate notes the proposal in Table 4.1 to scope out heat and radiation, according to the Applicant's conclusion that they are not relevant due to the characteristics of the proposed scheme. The Inspectorate has taken into account the nature and characteristics of the Proposed Development and agrees significant effects resulting from heat and radiation are unlikely to arise and therefore agrees that this aspect may be scoped out.

### **Mitigation**

- 3.3.19 Any mitigation relied upon for the purposes of the assessment should be explained in detail within the ES. The predicted significance of effects both prior to and following the implementation of proposed mitigation measures should be identified. The likely efficacy of the mitigation proposed should be explained with reference to residual effects.
- 3.3.20 The ES should also address how any mitigation proposed is secured, ideally with reference to specific DCO requirements or other legally binding agreements.

### **Vulnerability of the development to risks of major accidents and/or disasters**

- 3.3.21 The ES should include a description of the potential vulnerability of the Proposed Development to risks of major accidents and/or disasters, including vulnerability to climate change, which are relevant to the Proposed Development. Relevant information available and obtained through risk assessments pursuant to European Union legislation, such as Directive 2012/18/EU of the European Parliament and of the Council, or Council Directive 2009/71/Euratom, or relevant assessments carried out

pursuant to national legislation, may be used for this purpose provided that the requirements of these Directives are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

- 3.3.22 The Inspectorate notes that it is proposed in Chapter 4 Section 4.13 not to provide a separate chapter in the ES on major accidents and disasters on the basis that the potential effects on receptors resulting from major events will be reported in relevant aspect chapters. It is noted that there is a commitment to assess the vulnerability of the Proposed Development to major accidents and disasters, and to assess if the proposals could exacerbate major accidents or disaster events (paragraph 4.13.5). The Inspectorate has had regard to the information provided in the Scoping Report and considers that this is appropriate given the nature and characteristics of the Proposed Development.

#### **Transboundary effects**

- 3.3.23 Schedule 4 part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES. The Inspectorate notes that the Applicant has indicated in Appendix 1.2 of the Scoping Report by way of a Transboundary Effects Screening Matrix, and in Section 1 Table 1.2, that the Proposed Development is not likely to have significant impacts on another European Economic Area (EEA) State.
- 3.3.24 Regulation 32 of the EIA Regulations inter alia requires the Inspectorate to publicise a DCO application on behalf of the SoS if it is of the view that the proposal is likely to have significant effects on the environment of another EEA state, and where relevant, to consult with the EEA state affected.
- 3.3.25 The Inspectorate considers that where Regulation 32 applies, this is likely to have implications for the examination of a DCO application. The Inspectorate recommends that the ES should identify whether the Proposed Development has the potential for significant transboundary impacts and if so, what these are and which EEA States would be affected.

#### **A reference list**

- 3.3.26 A reference list detailing the sources used for the descriptions and assessments must be included in the ES. The Inspectorate notes the inclusion of a reference list in Section 17 of the Scoping Report set out by aspect chapter and welcomes this approach.

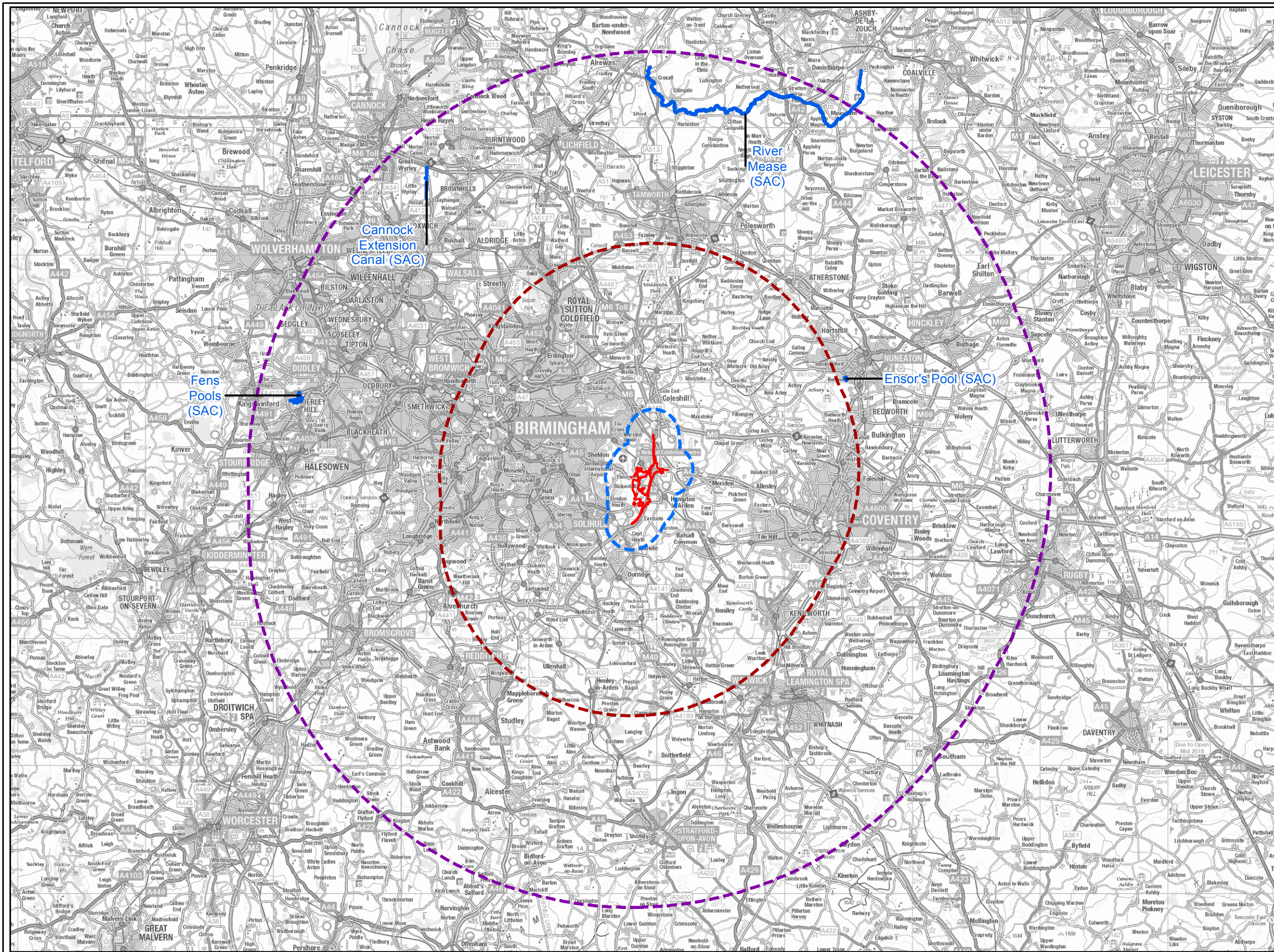


### **3.4 Confidential Information**

- 3.4.1 In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to information about the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information. Where documents are intended to remain confidential the Applicant should provide these as separate paper and electronic documents with their confidential nature clearly indicated in the title, and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 2014.

## Appendix B: Figures





**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX**

IT IS ASSUMED THAT ALL WORKS ON THIS DRAWING WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING WHERE APPROPRIATE, TO AN APPROPRIATE METHOD STATEMENT.

HAZARDS DETERMINED TO BE SIGNIFICANT RISKS RELATING TO THE WORKS ASSOCIATED WITH THIS DRAWING ARE IDENTIFIED BELOW. SIGNIFICANT RISKS ARE THOSE WHICH ARE NOT LIKELY TO BE OBVIOUS, ARE UNUSUAL, OR LIKELY TO BE DIFFICULT TO MANAGE.

**CONSTRUCTION**

FOR MAINTENANCE / OPERATION / DECOMMISSIONING AND DEMOLITION RISKS SEE PROJECT HEALTH AND SAFETY FILE.

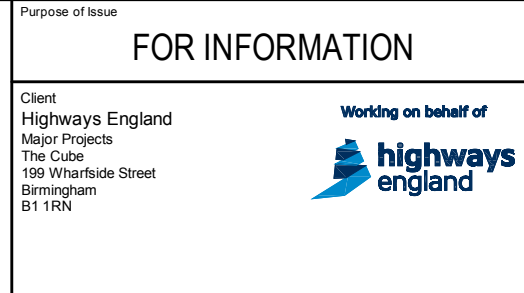
THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT.

- Legend**
- Red Line Boundary
  - 2km Study Area
  - 15km Study Area
  - 30km Study Area
  - Special Area of Conservation

FIRST ISSUE	By	MW	14/09/18	P01
Revision Details	By	Check	Date	Suffix

**FOR INFORMATION**

Client  
Highways England  
Major Projects  
The Cube  
199 Wharfedale Street  
Birmingham  
B1 1RN



Project Title

**M42 JUNCTION 6 IMPROVEMENT WORKS**

Drawing Title

**HABITATS REGULATIONS ASSESSMENT**

Designed	Drawn	DH	Approved	Date
MW	GB	MW	MW	14/09/18
Internal Project No	Suitability			
60543032	S2			
Scale @ A3	Zone			
1:315,000	M42			

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Drawing Number	Originator	Volume	Rev
HE551485	-ACM	-VES	P01
-ZZ_GEN_ZZ_ZZ	-DR-EG-0041		
Location	Type	Role	Number



## Appendix C: Citations & conservation objectives

# NATURA 2000 – STANDARD DATA FORM

## **Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).**

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011](#) (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here  
[http://bd.eionet.europa.eu/activities/Natura\\_2000/reference\\_portal](http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal)

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:  
[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the [SAC home page on the JNCC website](#). This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee  
25 January 2016.



# NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),  
Proposed Sites for Community Importance (pSCI),  
Sites of Community Importance (SCI) and  
for Special Areas of Conservation (SAC)

SITE UK0030258  
SITENAME River Mease

## TABLE OF CONTENTS

- [1. SITE IDENTIFICATION](#)
- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)

## 1. SITE IDENTIFICATION

<b>1.1 Type</b> B	<b>1.2 Site code</b> UK0030258	<a href="#">Back to top</a>
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### 1.3 Site name

River Mease

<b>1.4 First Compilation date</b> 2001-05	<b>1.5 Update date</b> 2015-12
--	-----------------------------------

### 1.6 Respondent:

**Name/Organisation:** Joint Nature Conservation Committee

**Address:** Joint Nature Conservation Committee Monkstone House City Road Peterborough  
PE1 1JY

**Email:**

**Date site proposed as SCI:** 2001-05

**Date site confirmed as SCI:** 2004-12

**Date site designated as SAC:** 2005-04

**National legal reference of SAC designation:**

Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010  
(<http://www.legislation.gov.uk/uksi/2010/490/contents/made>).

## 2. SITE LOCATION

[Back to top](#)





G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A B C D		A B C	
						Min	Max				Pop.	Con.	Iso.	Gl
I	1092	<a href="#">Austropotamobius pallipes</a>			p				C	DD	C	B	C	C
F	1149	<a href="#">Cobitis taenia</a>			p				C	DD	C	B	B	B
F	1163	<a href="#">Cottus gobio</a>			p				C	DD	C	B	C	B
M	1355	<a href="#">Lutra lutra</a>			p				C	DD	C	C	C	C

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

## 4. SITE DESCRIPTION

### 4.1 General site character

[Back to top](#)

Habitat class	% Cover
N06	100.0
<b>Total Habitat Cover</b>	<b>100</b>

### Other Site Characteristics

1 Terrestrial: Soil & Geology: alluvium,sandstone,clay,sedimentary 2 Terrestrial: Geomorphology and landscape: lowland,floodplain

### 4.2 Quality and importance

Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation for which the area is considered to support a significant presence. Cobitis taenia for which this is one of only four known outstanding localities in the United Kingdom. Cottus gobio for which this is considered to be one of the best areas in the United Kingdom. Lutra lutra for which the area is considered to support a significant presence. Austropotamobius pallipes for which the area is considered to support a significant presence.

### 4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
H	H02		B
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]

H	I01		B
---	-----	--	---

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

#### 4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): <http://publications.naturalengland.org.uk/category/3212324>

[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

<http://publications.naturalengland.org.uk/category/6490068894089216>

## 5. SITE PROTECTION STATUS (optional)

[Back to top](#)

### 5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

## 6. SITE MANAGEMENT

[Back to top](#)

### 6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

### 6.2 Management Plan(s):

An actual management plan does exist:

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No, but in preparation
<input checked="" type="checkbox"/>	No

### 6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

## EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the [official European Union guidelines for the Standard Data Form](#). The relevant page is shown in the table below.

### 1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

### 3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

### 3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippophila rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

### 3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

### 3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

### 3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

### 3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

### 3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

### 3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

### 3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

### 3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

#### 4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

#### 4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65



CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc.), trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

### 5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67



## European Site Conservation Objectives for River Mease Special Area of Conservation Site Code: UK0030258

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

**Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;**

- **The extent and distribution of qualifying natural habitats and habitats of qualifying species**
- **The structure and function (including typical species) of qualifying natural habitats**
- **The structure and function of the habitats of qualifying species**
- **The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely**
- **The populations of qualifying species, and,**
- **The distribution of qualifying species within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

### **Qualifying Features:**

- H3260. Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation; Rivers with floating vegetation often dominated by water-crowfoot
- S1092. *Austropotamobius pallipes*; White-clawed (or Atlantic stream) crayfish
- S1149. *Cobitis taenia*; Spined loach
- S1163. *Cottus gobio*; Bullhead
- S1355. *Lutra lutra*; Otter

## Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the “Habitats Regulations”) and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a ‘Habitats Regulations Assessment’, including an Appropriate Assessment, under the relevant parts of this legislation.

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**Publication date:** 30 June 2014 – version 2. This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England’s Strategic Standard on European Site Conservation Objectives 2014.

# NATURA 2000 – STANDARD DATA FORM

## **Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).**

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011](#) (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here  
[http://bd.eionet.europa.eu/activities/Natura\\_2000/reference\\_portal](http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal)

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More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the [SAC home page on the JNCC website](#). This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee  
25 January 2016.



# NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),  
Proposed Sites for Community Importance (pSCI),  
Sites of Community Importance (SCI) and  
for Special Areas of Conservation (SAC)

SITE UK0012672  
SITENAME Cannock Extension Canal

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- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)

## 1. SITE IDENTIFICATION

<b>1.1 Type</b> B	<b>1.2 Site code</b> UK0012672	<a href="#">Back to top</a>
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### 1.3 Site name

Cannock Extension Canal

<b>1.4 First Compilation date</b> 1995-06	<b>1.5 Update date</b> 2015-12
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### 1.6 Respondent:

**Name/Organisation:** Joint Nature Conservation Committee  
**Address:** Joint Nature Conservation Committee Monkstone House City Road Peterborough  
PE1 1JY  
**Email:**

**Date site proposed as SCI:** 1995-06  
**Date site confirmed as SCI:** 2004-12  
**Date site designated as SAC:** 2005-04

**National legal reference of SAC designation:**

Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010  
(<http://www.legislation.gov.uk/uksi/2010/490/contents/made>).

## 2. SITE LOCATION

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## 2.1 Site-centre location [decimal degrees]:

### Longitude

-1.970555556

### Latitude

52.64972222

## 2.2 Area [ha]:

5.0

## 2.3 Marine area [%]

0.0

## 2.4 Sitelength [km]:

0.0

## 2.5 Administrative region code and name

### NUTS level 2 code

### Region Name

UKG2	Shropshire and Staffordshire
UKG3	West Midlands

## 2.6 Biogeographical Region(s)

Atlantic (100.0  
%)

## 3. ECOLOGICAL INFORMATION

### 3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

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Species			Population in the site							Site assessment				
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A B C D		A B C	
						Min	Max				Pop.	Con.	Iso.	Glo.
P	1831	<a href="#">Luronium natans</a>			p				C	DD	C	B	B	B

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

## 4. SITE DESCRIPTION

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### 4.1 General site character

Habitat class	% Cover
N16	4.9
N06	75.0
N10	10.0
N23	10.1
<b>Total Habitat Cover</b>	<b>100</b>

### Other Site Characteristics

2 Terrestrial: Geomorphology and landscape: lowland

### 4.2 Quality and importance

Luronium natans for which this is considered to be one of the best areas in the United Kingdom.

### 4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
H	H02		B
H	I01		B
H	H04		B
H	A04		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

### 4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): [http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

<http://publications.naturalengland.org.uk/category/6490068894089216>

<http://publications.naturalengland.org.uk/category/3212324>

## 5. SITE PROTECTION STATUS (optional)

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### 5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				



## 6. SITE MANAGEMENT

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### 6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

### 6.2 Management Plan(s):

An actual management plan does exist:

<input type="checkbox"/> Yes
<input type="checkbox"/> No, but in preparation
<input checked="" type="checkbox"/> No

### 6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

## EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the [official European Union guidelines for the Standard Data Form](#). The relevant page is shown in the table below.

### 1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

### 3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

### 3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippophila rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

### 3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

### 3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

### 3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

### 3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

### 3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

### 3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

### 3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

### 3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

#### 4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

#### 4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc.), trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

### 5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67



## European Site Conservation Objectives for Cannock Extension Canal Special Area of Conservation Site Code: UK0012672

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

**Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;**

- **The extent and distribution of the habitats of qualifying species**
- **The structure and function of the habitats of qualifying species**
- **The supporting processes on the habitats of qualifying species rely**
- **The populations of qualifying species, and,**
- **The distribution of qualifying species within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

### **Qualifying Features:**

S1831. *Luronium natans*; Floating water-plantain



## Explanatory Notes: European Site Conservation Objectives

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**Publication date:** 30 June 2014 – version 2. This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England’s Strategic Standard on European Site Conservation Objectives 2014.

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As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:  
[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the [SAC home page on the JNCC website](#). This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee  
25 January 2016.



# NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),  
Proposed Sites for Community Importance (pSCI),  
Sites of Community Importance (SCI) and  
for Special Areas of Conservation (SAC)

SITE UK0012646  
SITENAME Ensor`s Pool

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- [6. SITE MANAGEMENT](#)

## 1. SITE IDENTIFICATION

<b>1.1 Type</b> B	<b>1.2 Site code</b> UK0012646	<a href="#">Back to top</a>
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### 1.3 Site name

Ensor`s Pool

<b>1.4 First Compilation date</b> 1996-01	<b>1.5 Update date</b> 2015-12
--	-----------------------------------

### 1.6 Respondent:

**Name/Organisation:** Joint Nature Conservation Committee

**Address:** Joint Nature Conservation Committee Monkstone House City Road Peterborough  
PE1 1JY

**Email:**

**Date site proposed as SCI:** 1996-01

**Date site confirmed as SCI:** 2004-12

**Date site designated as SAC:** 2005-04

**National legal reference of SAC designation:**

Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010  
(<http://www.legislation.gov.uk/uksi/2010/490/contents/made>).

## 2. SITE LOCATION

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## 2.1 Site-centre location [decimal degrees]:

**Longitude**  
-1.486388889

**Latitude**  
52.3425

## 2.2 Area [ha]:

3.86

## 2.3 Marine area [%]

0.0

## 2.4 Sitelength [km]:

0.0

## 2.5 Administrative region code and name

**NUTS level 2 code**

**Region Name**

UKG1

Herefordshire, Worcestershire and Warwickshire

## 2.6 Biogeographical Region(s)

Atlantic (100.0  
%)

## 3. ECOLOGICAL INFORMATION

### 3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

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Species			Population in the site							Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A B C D	A B C	
						Min	Max				Pop.	Con.	Iso.
I	1092	<a href="#">Austropotamobius pallipes</a>			p	50000	50000	i		G	C	A	C

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

## 4. SITE DESCRIPTION

#### 4.1 General site character

Habitat class	% Cover
N10	30.0
N06	70.0
<b>Total Habitat Cover</b>	<b>100</b>

#### Other Site Characteristics

1 Terrestrial: Soil & Geology: sedimentary, sandstone, clay, neutral 2 Terrestrial: Geomorphology and landscape: lowland

#### 4.2 Quality and importance

Austroptamobius pallipes for which this is considered to be one of the best areas in the United Kingdom.

#### 4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
H	M02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

#### 4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): <http://publications.naturalengland.org.uk/category/3212324>  
[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)  
<http://publications.naturalengland.org.uk/category/6490068894089216>

### 5. SITE PROTECTION STATUS (optional)

#### 5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

### 6. SITE MANAGEMENT

#### 6.1 Body(ies) responsible for the site management:

Organisation: Natural England

Address: \_\_\_\_\_

Email: \_\_\_\_\_

**6.2 Management Plan(s):**

An actual management plan does exist:

<input type="checkbox"/> Yes
<input type="checkbox"/> No, but in preparation
<input checked="" type="checkbox"/> No

**6.3 Conservation measures (optional)**

For available information, including on Conservation Objectives, see Section 4.5.

## EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the [official European Union guidelines for the Standard Data Form](#). The relevant page is shown in the table below.

### 1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

### 3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

### 3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippophila rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57



CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

### 3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

### 3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

### 3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

### 3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

### 3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

### 3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

### 3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

### 3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

#### 4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

#### 4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc.), trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

### 5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67



## European Site Conservation Objectives for Ensor's Pool Special Area of Conservation Site Code: UK0012646

With regard to this SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

**Ensure that the integrity of the site is maintained, and ensure that the site retains its ability to contribute to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining;**

- **The extent and distribution of the habitats of qualifying species**
- **The structure and function of the habitats of qualifying species, and**
- **The supporting processes on which the habitats of qualifying species rely**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

### **Qualifying Features:**

S1092. *Austropotamobius pallipes*; White-clawed (or Atlantic stream) crayfish

## Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 (the “Habitats Regulations”).

They must be considered when a competent authority is required to make a ‘Habitats Regulations Assessment’, including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features.

These Conservation Objectives are set for each habitat or species of a [Special Area of Conservation \(SAC\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term ‘favourable conservation status’ is defined in Article 1 of the Habitats Directive.

**Publication date:** 7 February 2018 – version 2. This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England’s Strategic Standard on European Site Conservation Objectives 2014.

# NATURA 2000 – STANDARD DATA FORM

## **Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).**

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011](#) (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here  
[http://bd.eionet.europa.eu/activities/Natura\\_2000/reference\\_portal](http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal)

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:  
[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the [SAC home page on the JNCC website](#). This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee  
25 January 2016.





# NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),  
Proposed Sites for Community Importance (pSCI),  
Sites of Community Importance (SCI) and  
for Special Areas of Conservation (SAC)

SITE UK0030150

SITENAME Fens Pools

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- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)

## 1. SITE IDENTIFICATION

<b>1.1 Type</b> B	<b>1.2 Site code</b> UK0030150	<a href="#">Back to top</a>
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### 1.3 Site name

Fens Pools
------------

<b>1.4 First Compilation date</b> 2001-01	<b>1.5 Update date</b> 2015-12
--	-----------------------------------

### 1.6 Respondent:

<b>Name/Organisation:</b> Joint Nature Conservation Committee
<b>Address:</b> Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
<b>Email:</b>

<b>Date site proposed as SCI:</b>	2001-01
<b>Date site confirmed as SCI:</b>	2004-12
<b>Date site designated as SAC:</b>	2005-04
<b>National legal reference of SAC designation:</b>	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 ( <a href="http://www.legislation.gov.uk/uksi/2010/490/contents/made">http://www.legislation.gov.uk/uksi/2010/490/contents/made</a> ).

## 2. SITE LOCATION

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## 2.1 Site-centre location [decimal degrees]:

### Longitude

-2.117777778

### Latitude

52.49666667

## 2.2 Area [ha]:

20.0

## 2.3 Marine area [%]

0.0

## 2.4 Sitelength [km]:

0.0

## 2.5 Administrative region code and name

### NUTS level 2 code

### Region Name

UKG3	West Midlands
------	---------------

## 2.6 Biogeographical Region(s)

Atlantic (100.0  
%)

## 3. ECOLOGICAL INFORMATION

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### 3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A B C D		A B C	
						Min	Max				Pop.	Con.	Iso.	Glo.
A	1166	<a href="#">Triturus cristatus</a>			p	101	250	i		M	C	B	B	B

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

## 4. SITE DESCRIPTION

#### 4.1 General site character

Habitat class	% Cover
N06	2.0
N07	5.0
N09	66.0
N23	7.0
N08	20.0
<b>Total Habitat Cover</b>	<b>100</b>

#### Other Site Characteristics

1 Terrestrial: Soil & Geology: nutrient-poor,acidic 2 Terrestrial: Geomorphology and landscape: valley,lowland

#### 4.2 Quality and importance

Triturus cristatus for which this is considered to be one of the best areas in the United Kingdom.

#### 4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
H	H02		B
H	K02		I
H	K04		I
H	J03		B
H	A04		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

#### 4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): <http://publications.naturalengland.org.uk/category/3212324>

<http://publications.naturalengland.org.uk/category/6490068894089216>

[http://jncc.defra.gov.uk/pdf/Natura2000\\_StandardDataForm\\_UKApproach\\_Dec2015.pdf](http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf)

### 5. SITE PROTECTION STATUS (optional)

#### 5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

## 6. SITE MANAGEMENT

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### 6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

### 6.2 Management Plan(s):

An actual management plan does exist:

<input type="checkbox"/> Yes
<input type="checkbox"/> No, but in preparation
<input checked="" type="checkbox"/> No

### 6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.
---

## EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the [official European Union guidelines for the Standard Data Form](#). The relevant page is shown in the table below.

### 1.1 Site type

CODE	DESCRIPTION	PAGE NO
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C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

### 3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

### 3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards ( <i>Spartinion maritimae</i> )	57
1330	Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> )	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs ( <i>Sarcocornetea fruticosi</i> )	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with <i>Empetrum nigrum</i>	57
2150	Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> )	57
2160	Dunes with <i>Hippophila rhamnoides</i>	57
2170	Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> )	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with <i>Juniperus</i> spp.	57
2330	Inland dunes with open <i>Corynephorus</i> and <i>Agrostis</i> grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	57
3150	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion roburi-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

### 3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

### 3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

### 3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

### 3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

### 3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

### 3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

### 3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

### 3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

#### 4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Scree, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

#### 4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65



CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

### 5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67



## European Site Conservation Objectives for Fen Pools Special Area of Conservation Site Code: UK0030150

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

**Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;**

- **The extent and distribution of the habitats of the qualifying species**
- **The structure and function of the habitats of the qualifying species**
- **The supporting processes on which the habitats of the qualifying species rely**
- **The populations of qualifying species, and,**
- **The distribution of qualifying species within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

### **Qualifying Features:**

S1166. *Triturus cristatus*; Great crested newt

## Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the “Habitats Regulations”) and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a ‘Habitats Regulations Assessment’, including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features as required by the provisions of Article 6(1) and 6(2) of the Directive.

These Conservation Objectives are set for each habitat or species of a [Special Area of Conservation \(SAC\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term ‘favourable conservation status’ is defined in Article 1 of the Habitats Directive.

**Publication date:** 30 June 2014 – version 2. This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England’s Strategic Standard on European Site Conservation Objectives 2014.

## Appendix D: Planning Inspectorate Screening Matrix

Potential effects upon the identified European Sites are provided in Table D-1 below.

**Table D-1 – Effects considered within the screening matrices**

Designation	Effects described in submission information	Presented in screening matrices as
Ensor's Pool SAC	Changes in water quality, reducing suitability of habitat for white-clawed crayfish.	Hydrological disturbance.
Fens Pools SAC	Changes in water quality, reducing suitability of aquatic or terrestrial habitat for great crested newts.	Hydrological disturbance.
Cannock Extension Canal SAC	Changes in water quality, reducing suitability of habitat for floating water plantain.	Hydrological disturbance.
River Mease SAC	Changes in water quality, reducing suitability of habitat for Bullhead, Otter, White-clwd crayfish, Spined loach and <i>Ranunculion fluitans</i> and <i>Callitricho-Batrachion</i> vegetation.	Hydrological disturbance.

The European sites included within the screening assessment are:

- Ensor's Pool SAC (Table D-2)
- Fens Pool SAC (Table D-3)
- Cannock Extension Canal SAC (Table D-4)
- River Mease SAC (Table D-5)

Evidence for, or against, LSE on the European Site(s) and their qualifying feature(s) is detailed within the footnotes to the screening matrices below.

### Matrix Key

✓ = Likely significant effect **cannot** be excluded

✗ = Likely significant effect **can** be excluded

C = construction

O = operation

D = decommissioning

**Table D-2 – Screening matrix for Ensor’s Pool SAC**

Name of European site and designation: Ensor’s Pool						
EU Code: UK0012646						
Distance to NSIP: 16.1km						
European site features	Likely effects of NSIP					
Effect	Hydrological Disturbance			In combination effects		
Stage of Development	C	O	D	C	O	D
1092 White-clawed (or Atlantic stream) crayfish	x <sub>a</sub>	x <sub>a</sub>	x <sub>a</sub>	x <sub>b</sub>	x <sub>b</sub>	x <sub>b</sub>

**Table D-3 – Screening matrix for Fens Pools SAC**

Name of European site and designation: Fens Pools						
EU Code: UK0030150						
Distance to NSIP: 27.5km						
European site features	Likely effects of NSIP					
Effect	Hydrological Disturbance			In combination effects		
Stage of Development	C	O	D	C	O	D
1156 Great crested newt <i>Triturus cristatus</i>	x <sub>c</sub>	x <sub>c</sub>	x <sub>c</sub>	x <sub>d</sub>	x <sub>d</sub>	x <sub>d</sub>

**Table D-4 – Screening matrix for Cannock Extension SAC**

Name of European site and designation: Cannock Extension Canal SAC						
EU Code: UK0012672						
Distance to NSIP: 27.1km						
European site features	Likely effects of NSIP					
Effect	Hydrological Disturbance			In combination effects		
Stage of Development	C	C	C	O	D	D
1831 Floating water-plantain <i>Luronium natans</i>	x <sub>e</sub>	x <sub>e</sub>	x <sub>e</sub>	x <sub>f</sub>	x <sub>f</sub>	x <sub>f</sub>

**Table D-5 – Screening matrix for River Mease SAC**

Name of European site and designation: River Mease SAC						
EU Code: UK0030258						
Distance to NSIP: 27.7km						
European site features	Likely effects of NSIP					
Effect	Hydrological Disturbance			In combination effects		
Stage of Development	C	C	C	O	D	D
3260 Water courses of plain to montane levels with <i>Ranunculion fluitans</i> and <i>Callitricho-Batrachion</i> vegetation	xg	xg	xg	xh	xh	xh
1163 Bullhead <i>Cotus gobio</i>	xg	xg	xg	xh	xh	xh
1355 Otter <i>Lutra lutra</i>	xg	xg	xg	xh	xh	xh
1092 Whie-clawed crayfish <i>Austropotamobius pallipes</i>	xg	xg	xg	xh	xh	xh
1149 Spined loach <i>Cobitis taenia</i>	xg	xg	xg	xh	xh	xh

- a) The distance separating the Scheme is considered sufficient to conclude that it would not result in any adverse impacts upon the SAC as a result of altered hydrology (Table 6-1)
- b) Any effects of the Scheme upon Ensor’s Pool SAC would be so small that they are not considered to merit further consideration, and therefore no in-combination effects with other projects or plans are anticipated (Paragraph 8.1.2)
- c) The distance separating the Scheme is considered sufficient to conclude that it would not result in any adverse impacts upon the SAC as a result of altered hydrology (Table 6-2)
- d) Any effects of the Scheme upon Fens Pools SAC would be so small that they are not considered to merit further consideration, and therefore no in-combination effects with other projects or plans are anticipated (Paragraph 8.1.2)
- e) The distance separating the Scheme is considered sufficient to conclude that it would not result in any adverse impacts upon the SAC as a result of altered hydrology (Table 6-3)
- f) Any effects of the Scheme upon Cannock Extension Canal SAC would be so small that they are not considered to merit further consideration, and therefore no in-combination effects with other projects or plans are anticipated (Paragraph 8.1.2)

- g) The distance separating the Scheme is considered sufficient to conclude that it would not result in any adverse impacts upon the SAC as a result of altered hydrology (Table 6-4)
- h) Any effects of the Scheme upon River Mease SAC would be so small that they are not considered to merit further consideration, and therefore no in-combination effects with other projects or plans are predicted (Paragraph 8.1.2)

## Appendix E: Finding of No Significant Effects Report

<b>Project Name:</b>		M42 Junction 6 Improvement Scheme
<b>Natura 2000 Site(s) under Consideration</b>		Ensor's Pool SAC Fens Pools SAC Cannock Extension Canal SAC River Mease SAC
<b>Date</b>	<b>Author (Name/Organisation)</b>	<b>Verified (Name/Organisation)</b>
August 2018	Marcus Wainwright-Hicks   AECOM	
<b>Name and location of European Site</b>	<p>Ensor's Pool SAC: The SAC is located 16.1km north-east from the closet point of the Scheme</p> <p>Fens Pools SAC: The SAC is located 27.5km north-west from the closet point of the Scheme.</p> <p>Cannock Extension Canal SAC: The SAC is located 27.1km north-east from the closet point of the Scheme</p> <p>River Mease SAC: The SAC is located 27.6km north from the closet point of the Scheme</p>	
<b>Description of the project</b>	Construction of a 2.4km long dual carriageway link road and associated junction improvements on the strategic and local road networks.	
<b>Is the project directly connected with or necessary to the management of the site (provide details)?</b>	No.	
<b>Are there other projects or plans that together with the project being assessed could affect the site (provide details)?</b>	None.	
<b>The Assessment of Significance of Effects</b>		
<b>Describe how long the project (alone or in combination) is likely to affect the European Site</b>	N/A – it will not affect any of the identified European sites.	
<b>Explain why these effects are not considered significant</b>	<p>Ensor's Pool SAC: The SAC is a ground water-dependant lake that supports an internationally important population of white-clawed crayfish. The distance separating the SAC from the Scheme is considered to be of sufficient magnitude to ensure that any hydrological changes would not affect the supply of ground water to this designated site.</p> <p>Fens Pools: The SAC comprises a series of pools and associated terrestrial habitat that supports an internationally important population of great crested newts. The distance separating the SAC from the Scheme is considered to be of sufficient magnitude to ensure that any hydrological changes would not affect the water supply to this designated site.</p> <p>Cannock Extension Canal SAC: The aquatic habitats of this canal support internationally important population of the Annex II plant species floating water-plantain. The distance separating the SAC from the Scheme is considered to be of sufficient magnitude to ensure that any hydrological changes would not affect the water supply to this designated site.</p> <p>River Mease SAC: This SAC is designated for the presence of notable aquatic plant communities, and notable populations of fish, white-clawed</p>	



	crayfish and otter. The distance separating the SAC from the Scheme is considered to be of sufficient magnitude to ensure that any hydrological changes would not affect the water supply to this designated site.		
List of agencies consulted: provide contact name and telephone or email address	None consulted as yet.		
Response to consultation	N/A.		
<b>Data collected to carry out the Assessment</b>			
Who carried out the assessment?	Sources of data	Level of assessment completed	Where can the full results of the assessment be accessed and viewed?
Marcus Wainwright-Hicks   AECOM	Data presented within the air quality assessment contained within the M42 Junction 6 Improvement Scheme Environmental Statement (in relation to the definition of the Affected Road Network), and designated site information published on the <a href="http://www.magic.gov.uk">www.magic.gov.uk</a> website.	LSE test.	In this report.