

M54 to M6 Link Road

TR010054

8.13 Habitats Regulations Assessment

Integrity Matrices

Regulation 5(2)(g)

Planning Act 2008

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

November 2020

Infrastructure Planning

Planning Act 2008

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

**M54 to M6 Link Road
Development Consent Order 202[]**

8.13 Habitats Regulations Assessment: Integrity Metrics

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Stage 2: Effects on Integrity

1.1 Introduction

- 1.1.1 Highways England has undertaken a Habitats Regulations Stage 1 Screening Assessment for the M54 to M6 Link Road (the Scheme), which has concluded that the Scheme would not result in likely significant effects on European Sites, either alone or in combination. The basis of this conclusion is that there are no statutory international nature conservation designations within 2 km of the Scheme, no such sites designated for bats lie within 30 km of the Scheme and no such sites are located within 200 m of the Affected Road Network (ARN) for the Scheme. These distances are standard for screening the potential impacts to internationally designated sites from the construction and operation of motorway and all-purpose trunk roads in the United Kingdom following Design Manual for Roads and Bridges (DMRB) guidance (<https://www.standardsforhighways.co.uk/dmrb/>).
- 1.1.2 The assessment is reported in Habitat Regulations Assessment – No Significant Effects Report [APP-216/6.9].
- 1.1.3 However, Natural England in its Relevant Representation [RR-037] supplemented by an Additional Submission [AS-002] advised that it could not yet agree that this would be the case in respect of effects on the Cannock Extension Canal Special Area of Conservation (SAC), specifically in relation to disturbance effects from air quality. Therefore, as requested by the Planning Inspectorate, Highways England has completed Integrity Matrices for the following site:
- Cannock Extension Canal SAC
- 1.1.4 This site has been subject to further consideration in order to establish if the NSIP could have an adverse effect on its integrity. The Integrity Matrix for Cannock Extension Canal SAC is set out in Table 1 and evidence for the conclusions reached on integrity are detailed in Section 1.2, footnotes a) and b).

1.2 Integrity matrices

Table 1: HRA Integrity Matrix- Cannock Extension Canal SAC

Name of European site and designation: Cannock Extension Canal SAC								
EU Code: Cannock Extension Canal SAC – UK0012672								
Distance to NSIP Located c. 6 km east of the Scheme, 280 m from the ARN								
European site features	Adverse effect on integrity							
Effect	Disturbance to key habitats or species as a result of changes in air quality		None		None		In combination effects	
Stage of Development	C	O	C	O	C	O	C	O
1831 Floating water-plantain <i>Luronium natans</i>	xa	xa					xb	xb

Matrix Key

✓ = Adverse effect on integrity cannot be excluded

× = Adverse effect on integrity can be excluded

C = construction

O = operation

D = decommissioning

1.2.1 Where effects are not relevant to a particular feature the matrix cell is shaded grey.

1.2.2 The HRA covers the construction and operation phases of the Scheme. The Scheme is not considered to have a decommissioning stage as it is expected to be in place in perpetuity therefore no information on this is provided.

Evidence supporting conclusions

- a) The site is vulnerable to disturbance e.g. from changes in air quality; however, it is located a significant distance from the Scheme (approximately 6 km), the groundwater assessment undertaken for the Scheme has shown that there are no hydrological or hydrogeological links from the Scheme to the site, and the site has been confirmed to be more than 200 m from the ARN. At its closest point the Cannock Extension Canal SAC is approximately 280m from the ARN (the M6 Toll) and is therefore not considered to be significantly affected by changes in air quality.

Additionally, the Air Pollution Information System (APIS) website¹ fits the Cannock Extension Canal SAC into the 'oligotrophic waterbodies' EUNIS classification and thus the critical load range for nitrogen is given as 3 to 10 kgN/ha/yr. This is because (in lieu of providing no critical load range at all) the European Nature Information System (EUNIS) ecosystem class C1.1 is considered the least worst fit, because this is the standard EUNIS ecosystem class used in APIS for sites containing Luronium natans, the most sensitive of which are nutrient starved upland lakes. However, APIS does not tailor its assignment of critical loads to site-specific circumstances and thus caveats the use of these critical loads to account for other types of sites supporting Luronium natans, commenting that 'This critical load only applies if the interest feature is associated with softwater oligotrophic or dystrophic lakes at the site. If the feature is not depending on these lake types, there is no comparable critical load available'. While the water quality in Cannock Extension Canal SAC is good, it cannot be described as an oligotrophic or dystrophic water body (Natural England's Supplementary Advice on the Conservation Objectives² describes it as mesotrophic). In these circumstances, according to APIS, 'there is no comparable critical load available'. This is because, like most other lowland freshwater open water sites, Cannock Extension Canal SAC is very likely to be phosphorus limited (i.e. phosphorus is the principal nutrient limiting eutrophication) rather than nitrogen-limited. Phosphorus does not come from vehicle exhaust emissions; for this reason nitrogen deposition is generally not calculated in risk assessments for lowland open freshwater sites. This, coupled with the distance of the site from the ARN, provides the basis to conclude that there would be no adverse effect on the integrity of the SAC due to air quality impacts.

¹ <http://www.apis.ac.uk/src/select-a-feature?site=UK0012672&SiteType=SAC&submit=Next> – accessed 02.11.20

² Natural England (2018) European Site Conservation Objectives: Supplementary advice on conserving and restoring site features. Cannock Extension Canal Special Area of Conservation (SAC) Site Code: UK0012672. Accessed here: <http://publications.naturalengland.org.uk/publication/5063623810482176>

Refer also to First Written Question responses 1.3.28 to 1.3.30.

- b) As there is no potential for an adverse effect on the integrity of Cannock Extension Canal SAC since it is beyond the zone of influence of the Scheme and has no applicable nitrogen critical load (as detailed above), it has not been considered further in terms of in combination effects.