

A47 Blofield to North Burlingham Dualling

Scheme Number: TR010040

Volume 6

6.1 Environmental Statement

**Chapter 4 – Environmental Assessment
Methodology**

APFP Regulation 5(2)(a)

Planning Act 2008

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

December 2020

Infrastructure Planning

Planning Act 2008

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

**A47 Blofield to North Burlingham
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**CHAPTER 4
ENVIRONMENTAL ASSESSMENT METHODOLOGY**

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4. Environmental Assessment Methodology

4.1. Environmental Scoping

- 4.1.1. The purpose of the scoping process is to determine which environmental topics should be included in the environmental impact assessment (EIA) process, the level of detail to which they should be assessed and to set out the proposed methodology to be reported within the Environmental Statement (ES).
- 4.1.2. The EIA Scoping Report was produced for the Proposed Scheme and submitted to the Planning Inspectorate in February 2018.
- 4.1.3. The EIA Scoping Report considered the environmental topics as per Regulation 5(2) of the Infrastructure Planning (EIA) Regulations 2017. The structure of the report and topics used were written in accordance with the Design Manual for Roads and Bridges (DMRB) Volume 11 and The Planning Inspectorate Advice Note 7.
- 4.1.4. The EIA Scoping Report identified the need to scope the following topics into the EIA:
- Air quality
 - Cultural heritage
 - Landscape and visual
 - Biodiversity
 - Geology and soils
 - Material assets and waste
 - Noise and vibration
 - People and communities (now referred to as population and human health)
 - Road drainage and the water environment
 - Climate
 - Combined and cumulative effects (now referred to as cumulative effects assessment)
- 4.1.5. The EIA Scoping Report was submitted to the Planning Inspectorate in order to request a Scoping Opinion. The EIA Scoping Report was issued to consultation bodies by the Planning Inspectorate and the responses from these consultation bodies have formed the Scoping Opinion (**TR010040/APP/6.6**) received from the Planning Inspectorate on 19 March 2018.

4.1.6. The design manual for roads and bridges (DMRB) environmental and sustainability guidance was re-written and published in 2019 and 2020. Where updates to guidance have changed scope to the 2018 Scoping Report, consultation has been undertaken with the Planning Inspectorate and relevant environmental bodies. This is detailed in individual environmental chapters of this ES and responses to Scoping Opinion are recorded in Appendix 4.1 (Scoping Opinion responses) (TR010040/APP/6.2).

4.2. Surveys and predictive techniques and methods

4.2.1. The principal guidance documents used to assess and report environmental effects in this ES are contained in DMRB Sustainability and Environment. The methodologies used for the assessments for individual topics in this ES are based on those set out in the EIA Scoping Report, Scoping Opinion and Preliminary Environmental Information Report (PEIR) for the Proposed Scheme (2018), and discussions with relevant consultees.

4.2.2. In undertaking the EIA, Highways England has applied the key principles, topics, approaches and criteria set out in these documents; however, where appropriate these have been supplemented using latest guidance and professional judgement. Individual environmental chapters provide further detail where appropriate, on surveys and methods. This is reported in each of the individual topic chapters of this ES.

Updates to guidance

4.2.3. The DMRB guidance has been updated since the completion of key documents in the EIA process, in particular the Scoping Report and Scoping Opinion. These documents shape the scope of the environmental assessments reported in this ES.

4.2.4. Where changes in the guidance required a change in approach as detailed in the Scoping Report, the relevant environmental bodies have been consulted and the approach agreed.

4.2.5. This is reported in each of the individual topic chapters of this ES.

Key Stages of EIA Consultation

Non-statutory consultation

4.2.6. An extensive stakeholder mapping exercise was undertaken to identify relevant stakeholders and their key interests. This list was used to inform the participants of a six week non-statutory public consultation, which was held between 13 March and 21 April 2017 and included public information exhibition events held on the 29 and 31 March, and 1 April 2017. On conclusion of the non-statutory

consultation period, a consultation report was produced (see Annex A to the Consultation Report (**TR010040APP/5.2**)).

Scoping Report

- 4.2.7. The EIA Scoping Report sets out the scope for this Environmental Statement (ES) and shapes the assessment in each of the environmental topic chapters. The Scoping Opinion is the official response from the Planning Inspectorate, giving comment on the proposed approach detailed in the Scoping Report.
- 4.2.8. The EIA Scoping Report was submitted to the Planning Inspectorate in February 2018. The Planning Inspectorate subsequently issued the scoping report to statutory consultees, with a deadline to respond with comments. The resulting Scoping Opinion from the Planning Inspectorate with consultee responses was received by Highways England in March 2018 (**TR010040/APP/6.6**) Responses received from the Scoping Opinion and statutory consultation were taken into consideration and incorporated into the design and assessment process, where appropriate (Consultation Report (**TR010040APP/5.2**)).

Preliminary environmental information report

- 4.2.9. The PEIR was produced in August 2018 to inform the public, landowners, prescribed bodies and other stakeholders about the ongoing EIA work and the preliminary information on the environmental baseline and potential impacts of the development proposals.
- 4.2.10. The PEIR was used as a basis to inform stakeholders during the six week statutory consultation period (September and October 2018), including public exhibitions and engagement with environmental bodies.
- 4.2.11. Further detail on the consultation and responses are detailed in the Consultation Report (**TR010040/APP/5.1**) and referenced within the individual topic chapters of this report where appropriate.

Statutory consultation

- 4.2.12. A six week statutory public consultation was held in September and October 2018. On conclusion of the statutory consultation period, a consultation report was produced (see **TR010040/APP/5.1**).
- 4.2.13. As part of the EIA process, environmental bodies are consulted. Details of consultation and the outcomes are provided within the individual topic chapters.

4.3. General assessment assumptions and limitations

- 4.3.1. This ES considers the potential impacts of the Proposed Scheme as described in chapter 2 The Proposed Scheme (TR010040/APP/6.1), that could result in likely significant effects.
- 4.3.2. Individual topic chapters provide further detail where appropriate, including limitations and assumptions.

4.4. Significance criteria

- 4.4.1. The environmental impact assessment reports the likely significance of environmental effects using established significance criteria, as presented within DMRB Volume 11, Section 2, Part 4 LA 104 Environmental assessment and monitoring. This requires an assessment of the receptor or resource’s environmental value (or sensitivity) and the magnitude of change (impacts).
- 4.4.2. The DMRB states that the approach to assigning significance of effect relies on reasoned argument, professional judgement and taking on board the advice and views of appropriate organisations. For some individual topic chapters, predicted effects may be compared with quantitative thresholds and scales in determining significance.
- 4.4.3. Assigning each effect to one of the five significance categories enables different topic issues to have consistent terminology in their conclusions, to assist the decision-making process. These five significance categories are set out in Table 4-1.

Table 4-1 : Description of the significance of effect categories

Significance category	Typical description
Very large	Effects at this level are material in the decision-making process.
Large	Effects at this level are likely to be material in the decision-making process.
Moderate	Effects at this level can be considered to be material decision-making factors.
Slight	Effects at this level are not material in the decision-making process.
Neutral	No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

Source: DMRB Volume 11, Section 2, Part 4, LA 104 Environmental Assessment and Monitoring, Table 3.7

- 4.4.4. The environmental value will be identified for each of the individual topics that have been carried forward from the scoping exercise for further environmental assessment, along with the magnitude of change. In this way, the potential significance of environmental effects will be determined for each relevant environmental topic. Five significance categories can result from the assessment, as defined in Table 4-2.

- 4.4.5. It is important to note that significance categories are required for positive (beneficial) as well as negative (adverse) effects. The greater the magnitude of impact on a receptor, the more significant the effect. For example, the consequences of a highly valued environmental resource suffering a major detrimental impact would be a significant adverse effect.
- 4.4.6. Where the table allows for more than one significance, for example Slight or Moderate, the assessment will report the worst case scenario. Where worst case scenario is not appropriate in the assessment, justification on the approach will be provided.
- 4.4.7. Effects that are identified as Moderate or above (beneficial or adverse) will be considered significant.

Table 4-2 : Assessing significance of potential effects

Environmental value (sensitivity)	Magnitude of potential impact (degree of change)					
	No change	Negligible	Minor	Moderate	Major	
Very high	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large	
High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large	
Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large	
Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate	
Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight	

- 4.4.8. As per the DMRB guidance, Chapter 5 (Air quality), Chapter 12 (Noise and vibration), Chapter 15 (Climate) (**TR010040/APP/6.1**) do not explicitly follow this general approach to determine the significance of effects, due to the nature of the topics and their methodologies. The criteria used to determine the significance of effects are outlined in the individual environmental chapters.

Mitigation measures and enhancement

- 4.4.9. Mitigation measures fall in into three broad categories:

- Mitigation in the strict sense: these are measures taken to avoid or reduce negative effects. Measures may include locating the development and its working areas and access routes away from areas of high environmental sensitivity, fencing off sensitive areas during the construction period, or timing works to avoid sensitive periods. Mitigation measures associated with construction are described in Environmental Management Plan (EMP)(**TR010040/APP/7.7**).
- Compensation: the use of replacement areas to make up for the loss of, or permanent damage to resources. Any replacement area should be similar to, with appropriate management and have the ability to reproduce the functions

and conditions of those resources that have been lost or damaged. Compensation may also be in the form of a financial payment.

- **Offsetting:** the provision of a benefit that is related to the effect but is not a like-for-like replacement of the feature to be lost.

4.4.10. Priority has been given to the avoidance of effects at source, whether through amending the design of the Proposed Scheme or by regulating the timing or location of activities. Where it has not been possible to avoid significant negative effects, opportunities have been sought to reduce the effects, ideally to the point where they are no longer significant through mitigation measures. Where this has not been possible, opportunities for compensation have been explored, as detailed in the topic chapters of this ES.

4.4.11. Each individual topic chapter provides a description of enhancement measures that have been considered as part of this Proposed Scheme and have been assessed as part of the EIA (where practicable).

Implementation and enforcement of mitigation

4.4.12. Mitigation would be secured by way of requirement in the Development Consent Order (DCO) including that the Proposed Scheme is undertaken in accordance with the EMP, which includes detailed provision on mitigation of construction impacts and specific mitigation obligations in key topic areas such as landscaping, drainage and contaminated land.

4.4.13. The DCO places a legal responsibility on the designers and construction contractors to comply with the DCO requirements. Discharge of these requirements would be consent from the Secretary of State, generally following consultation with relevant planning or environmental authority.

4.5. Duplication of assessment

4.5.1. This ES has been prepared with reference to environmental assessments that have been carried out, or are ongoing, for nearby developments. In this way, duplication of assessment or survey effort has been avoided and consistency of approach, unless scheme-specific factors determine otherwise, can be assured.

4.5.2. Chapter 15 Cumulative effect assessment (**TR010040/APP/6.1**) provides further information on the assessment approach.