

52 Introduction

This chapter provides an introduction to cumulative impact assessment and an overview of the approach and structure adopted for the cumulative impact assessment of the AWPR.

52.1 Introduction

- 52.1.1 The proposed Aberdeen Western Peripheral Route (AWPR) comprises 46km of dual carriageway and forms an integral part of the Modern Transport System (MTS) proposals for the region. For the purposes of reporting within this Environmental Statement (ES), assessment of the proposed scheme has been undertaken separately for each of its three legs: Northern Leg, Southern Leg and Fastlink. In order to consider the combined impacts of the entire scheme assessed within Parts B (Northern Leg), C (Southern Leg) and D (Fastlink), Part E of the ES provides an overview of the impacts from the entire proposed scheme.
- 52.1.2 Consideration is given to the possible cumulation of impacts of the proposed scheme and those from other proposed major developments in the area. Cumulation of impacts is discussed from the perspective of whole scheme impacts per environmental topic area as well as considering the geographical cumulation of different types of impacts. In addition, whole scheme impacts are discussed in terms of sustainable development objectives.

52.2 Legislation and Guidance

Legislation

- 52.2.1 The legal requirement for EIA is determined by the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended). These regulations amend those terms of the Roads (Scotland) Act 1984 which pertain to environmental assessment.
- 52.2.2 Schedule 4, Part 1 of the Regulations sets out the information which could be reasonably required to be included in the ES. With particular reference to the assessment of cumulative impacts, Part I states:

‘A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:

- (a) the existence of the development,
- (b) the use of natural resources,
- (c) the emission of pollutants, the creation of nuisances and the elimination of waste,

and the description by the applicant or appellant of the forecasting methods used to assess the effects on the environment.’

Guidance

- 52.2.3 In Scotland there is limited guidance as to the approach to take when assessing cumulative impacts.

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- 52.2.4 In 1999, Hyder produced 'Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions' for the European Commission: Environment Directorate-General. These guidelines were designed for use by the developer and EIA practitioner and to apply to a wide range of projects and to assist in the EIA process throughout the Member States. Advice on how to approach these kinds of impacts during the EIA process and how to adapt the approach to a specific project is provided. Methods and tools for identifying and assessing cumulative and indirect impacts as well as impact interactions are also detailed. Cumulative impacts are defined within this document as impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the proposed project.
- 52.2.5 Elsewhere, the Canadian Environmental Assessment Agency published the 'Cumulative Effects Assessment Practitioners Guide' in 1999. The purpose of this document is to provide practitioners with an overview and clarification of the practice of cumulative impact assessments (CIAs). Suggestions on practical approaches to complete CIAs that meet statutory requirements and best professional practice are provided within the document.
- 52.2.6 The Scottish Parliament Information Centre (SPICe) published a Briefing Paper in August 2004 on Environmental Impact Assessment for the benefit of Members of Parliament which accepts that it is very difficult to consider cumulative impacts as part of the EIA process. It is also accepted that CIA is more appropriate at a strategic level, as part of the Strategic Environmental Assessment (SEA) process, which is the subject of separate legislation, whereby the cumulative effects of multiple projects can be considered. For example, the current increase in applications for wind farm development has often led to several developments being located in close proximity. This leads to a very complicated EIA process whereby each developer is expected to assess the cumulative impacts of their proposal with those of neighbouring projects. SEA offers the opportunity to consider cumulative impacts at a regional and strategic scale without prejudice to individual applications.
- 52.2.7 The Design Manual for Roads and Bridges (DMRB) Volume 11 (The Highways Agency et. al., 1993) (Section 4, Part 3, Chapter 2 Environmental Effects) refers to the need to note cumulative effects. More detailed advice is offered in the Interim Advice Note 81/06 (Dean Kerwick for the Highways Agency) (Volume 11, Section 2, Part 5).

Overall

- 52.2.8 Overall, whilst there is no agreed approach or definitive guidance on undertaking CIA, the approach taken in relation to CIA of the proposed scheme has considered the available guidance and documents and has been agreed as appropriate during discussions with Transport Scotland.

52.3 CIA Approach

Definition

- 52.3.1 With regards to the proposed scheme, this CIA provides the following:
- An overview of the effects arising from the proposed scheme as a whole, i.e. the Northern Leg, Southern Leg and Fastlink;
 - An assessment of the interaction of predicted impacts from other major developments within the area with the predicted impacts of the proposed scheme;
 - An assessment of the potential cumulative impacts occurring at key areas along the proposed scheme where multi-disciplinary effects are particularly evident; and
 - An appraisal of sustainability issues most pertinent to the entire road scheme.

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52.3.2 Major developments are defined and listed within Chapter 54 (Whole Scheme Cumulative Impact Assessment). All future development proposals identified within the Land Use chapters (Chapters 7, 22 and 37) were appraised to determine whether they were of major, local or minor significance. Developments appraised include:

- land allocated for development within the Aberdeen City and Aberdeenshire Local Plans;
- relevant planning applications between July 2001 and July 2006 which have been granted permissions and not yet implemented; and
- applications pending consideration and applications refused but with an appeal pending.

52.3.3 This CIA does not assess the following:

- Impacts from other past and present development on the environment affected by the proposed scheme, as these have already been considered within Parts B, C and D, where appropriate, as they are considered to influence the baseline assessment.

General Approach

52.3.4 Part E of the ES provides a strategic overview of the proposed scheme, offering a holistic illustration of potential impacts arising from the entire proposed scheme, and from the proposed scheme together with other future major development. The CIA in most cases employs a qualitative approach, rather than attempting to provide detailed analysis. The aim is not simply to provide a summary of impacts, but also to illustrate the implications of the cumulation of impacts over the wider geographical area.

52.3.5 The cumulative assessment of air quality has addressed the regional air quality impacts as required by the Design Manual for Roads and Bridges, Volume 11. Due to its size, it was considered more appropriate to provide the air quality assessment within a separate chapter.

52.4 Part E Structure

52.4.1 Part E (Cumulative Impact Assessment) of the ES is presented within seven Chapters, as follows:

- Chapter 53 – Summary of Key Scheme Impacts;
- Chapter 54 – Whole Scheme Cumulative Impact Assessment;
- Chapter 55 – Air Quality Cumulative Impact Assessment;
- Chapter 56 – Mitigation for Whole Scheme Impacts;
- Chapter 57 – Site-Specific Cumulative Impact Assessment;
- Chapter 58 – Sustainability Appraisal; and
- Chapter 59 – Conclusions and Recommendations.

52.4.2 Appendix 55.1 (Wider Scale Air Quality Impacts) supports Part E (Cumulative Impact Assessment).

52.5 References

Hyder, (1999), Guidelines on the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions, DG XI Brussels

Reid H, (2004), Scottish Parliament Information Centre (SPICe) Briefing – Environmental Impact Assessment, The Scottish Parliament

The Cumulative Effects Assessment Working Group, (1999), Cumulative Effects Assessment Practitioners Guide, Canadian Environmental Assessment Agency