

5 Overview of the Assessment Process

5.1 Introduction

5.1.1 This chapter outlines the general approach followed for the Design Manual for Roads and Bridges (DMRB) Stage 3 Environmental Impact Assessment (EIA) of the A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme (hereafter referred to as the proposed Scheme) in accordance with the relevant guidance. More detailed methodologies are provided in the respective chapters.

5.1.2 The aims of the environmental assessment are to:

- gather information about the environment of the study area and identify environmental constraints and opportunities associated with the area which may influence, or be affected by the proposed Scheme;
- describe the likely significant effects; and
- identify and incorporate into the proposed Scheme design and operation, features and measures to avoid, reduce or offset significant adverse effects, or, in some cases, to enhance beneficial effects.

5.2 Scope and Guidance

Strategic Environmental Assessment (SEA)

5.2.1 As described in Chapter 1 (Introduction), two Strategic Environmental Assessments (SEAs) were undertaken that are relevant to the proposed Scheme: the SEA for the Strategic Transport Projects Review (STPR) (Jacobs, Faber Maunsell, Grant Thompson and Tribal Consulting 2008) and the SEA for the A96 Dualling Programme (Halcrow 2014, CH2M 2015 and CH2M 2016). The outputs of these SEAs, particularly in relation to the mitigation strategies, have been taken into account during the EIA process for the proposed Scheme. More information can be found in Chapter 1 (Introduction).

Trunk Road Environmental Impact Assessment (EIA)

5.2.2 The term 'trunk road' in Scotland refers to the strategic system of major roads and associated structures (including bridges) for which the Scottish Ministers have responsibility. The proposed Scheme would form part of the trunk road network.

5.2.3 Annex E of Circular 8/2007 (Scottish Government 2007) provides guidance on EIAs of trunk road projects, with reference to the Environmental Impact Assessment (Scotland) Regulations 1999. Although the Environmental Impact Assessment (Scotland) Regulations 2011 consolidated, updated and replaced Part II of the Environmental Impact Assessment (Scotland) Regulations 1999, Parts III and IV of the 1999 Regulations concerning Roads, Bridges and Land Drainage, remain extant. Consequently the guidance contained in Circular 8/2007 in Annex E continues to apply and is relevant to the proposed Scheme.

Design Manual for Roads and Bridges (DMRB)

5.2.4 The DMRB sets out governmental guidance on the development of trunk road schemes and is applicable to the proposed Scheme. Volume 11 of the DMRB specifically provides guidance on EIA, including the level of assessment at key stages of development and reporting of environmental effects.

5.2.5 The DMRB considers three levels of assessment, comprising Stage 1, Stage 2 and Stage 3. The objectives of each stage are identified in Table 5.1.

Table 5.1: DMRB Stages of EIA

| Stage | Objectives |
|---------|---|
| Stage 1 | Identification of environmental advantages, disadvantages and constraints associated with broadly defined improvement strategies. |
| Stage 2 | Identification of the factors and effects to be taken into account in the selection of route options and in the identification of the environmental advantages, disadvantages and constraints associated with these. |
| Stage 3 | Assessment to be undertaken in accordance with Environmental Impact Assessment (Scotland) Regulations 2011 which implements Directive 2011/92/EU (European Union 2011), with publication of an Environmental Statement (ES) or Environmental Assessment Report (EAR). |

- 5.2.6 It should be noted that some of the updates to the guidance provided in the DMRB no longer refer specifically to assessment stages as listed in Table 5.1, such as HA213/11: Noise and Vibration (Highways Agency, Transport Scotland, Welsh Government and The Department for Regional Development Northern Ireland 2011), which refers to ‘simple’ and ‘detailed’ assessment. However, for the purposes of consistency and clarity, this Environmental Statement (ES) refers to ‘DMRB Stage 3 assessment’ throughout.
- 5.2.7 As set out in Section 3.3 (DMRB Stage 2 Options Appraisal) of Chapter 3 (Consideration of Alternatives), a total of eight route options were identified and considered as part of the DMRB Stage 2 assessment, with the environmental assessment element of this reported in Part 3 of the DMRB Stage 2 Scheme Assessment Report (Jacobs 2014).

Screening and Scoping Process

- 5.2.8 A screening and scoping exercise (Jacobs 2015), undertaken as part of the DMRB Stage 3 assessment, was issued to statutory consultees in November 2015.
- 5.2.9 The screening exercise was undertaken following guidance in DMRB Volume 11, Section 2, Part 3, HD47/08: Screening of Projects for Environmental Impact Assessment (Highways Agency, Scottish Government, Welsh Assembly Government and The Department for Regional Development Northern Ireland 2008b). The screening exercise confirmed and recorded the requirement for an EIA for the proposed Scheme. The Record of Determination (RoD) to formally record the screening process is provided in Appendix A1.1.
- 5.2.10 The scoping exercise, undertaken at the same time, was carried out in accordance with DMRB Volume 11, Section 2, Part 4, HA204/08: Scoping of Environmental Impact Assessments (Highways Agency, Scottish Government, Welsh Assembly Government and The Department for Regional Development Northern Ireland 2008c). The main objectives of the scoping exercise were to:
- review existing information and reports;
 - identify environmental constraints relevant to both the construction or operation of the proposed Scheme;
 - identify where additional environmental surveys and data gathering were required; and
 - determine the approach and method for the environmental assessment.

Scope of Environmental Assessment

- 5.2.11 In accordance with DMRB Volume 11, assessment has been undertaken of the environmental parameters presented in Table 5.2. This environmental topic structure takes into account guidance provided in Appendix D of Interim Advice Note (IAN) 125/15: Environmental Assessment Update (Highways England 2015) (hereafter referred to as IAN125/15). This guidance note was issued in October 2015 and replaces the previous IAN125/09: Supplementary Guidance for Users of DMRB Volume 11 Environmental Assessment (Highways Agency 2009) (hereafter referred to as IAN125/09).

Table 5.2: Environmental Parameters

| ES Chapter Reference | Environmental Parameter | Comments |
|----------------------|--|---|
| 7 | Air Quality | - |
| 8 | Noise and Vibration | - |
| 9 | Landscape | Landscape assessment listed in IAN125/15 is reported as two ES chapters 'Landscape' and 'Visual' due to volume of data. |
| 10 | Visual | |
| 11 | Habitats and Biodiversity | - |
| 12 | Geology, Soils, Contaminated Land and Groundwater | Geology and Soils assessment as listed in IAN125/15 will be reported under the ES chapter title 'Geology, Soils, Contaminated Land and Groundwater'. |
| 13 | Road Drainage and the Water Environment | - |
| 14 | Cultural Heritage | - |
| 15 | People and Communities: Community and Private Assets | Combines DMRB Volume 11 topics 'land use' and 'community effects' as proposed in IAN125/09. However, due to volume of data the 'People and Communities' chapter as listed in IAN125/15 will be reported in two parts under 'Community and Private Assets' and 'Effects on All Travellers'. |
| 16 | People and Communities: Effects on All Travellers | Combines DMRB Volume 11 topics 'pedestrians, cyclists and equestrians' and 'vehicle travellers', as proposed by IAN125/09. However, due to volume of data the 'People and Communities' chapter as listed in IAN125/15 will be reported in two parts under 'Community and Private Assets' and 'Effects on All Travellers'. |
| 17 | Materials | Inclusion of this topic takes cognisance of IAN153/11: Guidance on the Environmental Assessment of Material Resources (Highways Agency 2011). |
| 18 | Policies and Plans | A separate 'Policies and Plans' chapter is provided, although in line with IAN125/15 relevant policies and plans are also considered within the technical chapters. |
| 19 | Assessment of Cumulative Effects | Inclusion of this topic takes cognisance of HA205/08: Assessment and Management of Environmental Effects (Highways Agency, Scottish Government, Welsh Assembly Government and The Department for Regional Development Northern Ireland 2008a) |
| 20 | Schedule of Environmental Commitments | - |
| 21 | Summary of Significant Residual Impacts | - |

- 5.2.12 Further to the structure of the assessment, IAN125/15 provides guidance on the approach to the environmental assessment in line with the requirements of the updated EIA Directive (Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment) (European Union 2014). Although the guidance provided in IAN125/15 has been specifically developed for Highways England (previously Highways Agency), this ES has been produced with cognisance of IAN125/15, in discussion with Transport Scotland, with particular reference to achieving an effective and efficient environmental assessment.
- 5.2.13 Details of the scope of assessment within these environmental parameters are provided within each ES chapter.
- 5.2.14 Appendix 5.1 identifies the receptor locations that are referred to within each ES chapter, and records the specific reference identification number, within that chapter, for each receptor.

Study Area

- 5.2.15 The study area required or recommended by the DMRB and best practice guidance varies depending on the specific environmental parameter being assessed. The study area is therefore defined separately within each assessment chapter according to topic guidance, the geographic

scope of potential impacts or the geographic scope of the information required to assess those impacts and the associated likely significant effects.

5.3 Consultation

- 5.3.1 Consultation was undertaken for screening, scoping and the environmental assessment according to the guidance provided in Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment (Scottish Government 2013). Cognisance has also been taken of PAN 81/2007: Community Engagement (Scottish Executive 2007), PAN 3/2010 Community Engagement (Scottish Government 2010), the National Standards for Community Engagement (Communities Scotland 2005) and A96 Dualling Inverness to Aberdeen: Engaging with Communities (Transport Scotland 2015). Further details on the consultation process are provided in Chapter 6 (Consultation and Scoping).

5.4 Environmental Reporting

Chapter Structure

- 5.4.1 Chapters 7 to 17 as listed in Table 5.2, provide:
- an introduction to the subject area;
 - relevant legislation, plans and policies;
 - approach and methods used in the assessment;
 - baseline conditions (i.e. the 'existing' situation or for certain assessments the anticipated future situation in the absence of the proposed Scheme);
 - potential effects of the proposed Scheme during construction and operation;
 - proposed mitigation for the proposed Scheme;
 - residual effects of the proposed Scheme (taking account of proposed mitigation); and
 - references.
- 5.4.2 Chapter 18 (Policies and Plans) and Chapter 19 (Assessment of Cumulative Effects) have a slightly modified structure appropriate to the topic area. Chapter 20 (Schedule of Environmental Commitments) and Chapter 21 (Summary of Significant Residual Impacts) are presented in tabular format.

General Approach

Baseline Conditions

- 5.4.3 This EIA considers likely effects of the proposed Scheme on each environmental parameter in comparison to baseline conditions, which were determined through field survey, desk-based review and consultation. Baseline conditions describe the environmental conditions at the site (and in the wider area as pertinent to the particular environmental parameter) in the absence of the proposed Scheme (i.e. the 'Do-Minimum' scenario).

Potential Impacts

- 5.4.4 The general approach to assessment is based on the determination of the significance of an impact from a combination of the sensitivity or importance of the baseline conditions (i.e. the current site and its environs, including the sensitivity of receptors) and the magnitude of potential impacts. This process is described in the respective environmental chapters, and where alternative approaches were considered more appropriate these are described and justified.
- 5.4.5 It should be noted that the magnitude and significance reported within the 'Potential Impacts' section of each chapter are on the basis of no mitigation.

- 5.4.6 The assessment describes the potential impacts of the proposed Scheme during both its construction and operation.
- 5.4.7 For assessments of potential impacts based on traffic data (such as air quality and noise and vibration), the assessment takes into account predicted changes in traffic flows in future years for the proposed Scheme. Traffic volumes for the 'Do-Minimum' and 'Do-Something' scenarios were derived from the Moray Firth Transport Model (MFTM).

Mitigation

- 5.4.8 PAN 1/2013: Environmental Impact Assessment (Scottish Government 2013) presents mitigation as a hierarchy of measures ranging from prevention of environmental effects by avoidance, to measures to offset any effects that cannot be remedied. The mitigation hierarchy is summarised in Table 5.3.

Table 5.3: Mitigation Hierarchy

| Level of Mitigation | Definition |
|---------------------|---|
| Prevent | To prevent adverse environmental effects at source (e.g. building design or specification of construction equipment). |
| Reduce | If adverse effects cannot be prevented, steps taken to secure a reduction of effects (e.g. minimisation of the cause of the effect at source, abatement on site and abatement at receptor). |
| Remedy/offset | When effects remain that cannot be prevented or reduced, they should be offset by remedial or compensatory action (e.g. provision of environmental improvements, opportunities for access and informal recreation, creation of alternative habitats and prior excavation of archaeological features). |

- 5.4.9 Mitigation takes into account best practice, legislation, guidance and professional experience. The commitments and monitoring frameworks identified in the SEA for the STPR (Jacobs, Faber Maunsell, Grant Thompson and Tribal Consulting 2008) and the SEA for the A96 Dualling Programme (Halcrow 2014, CH2M 2015 and CH2M 2016) have also been considered.
- 5.4.10 Where possible and reasonably practicable, potential adverse environmental impacts of the proposed Scheme have been prevented through an iterative approach to the design process, rather than relying on measures to mitigate the effects (e.g. incorporation of access arrangements for vehicles or pedestrians into the design). These measures are reflected in the proposed Scheme as described in Chapter 4 (The Proposed Scheme) and as such they are not proposed or reported in this ES as mitigation. However these measures are referred to as embedded mitigation within a number of the ES Chapters.
- 5.4.11 Where complete prevention of potential effects was not feasible, measures have been proposed to reduce potentially significant effects through abatement measures either at source, at the site (e.g. visual screen planting and landscaping), or at the receptor (e.g. design of culverts). The level at which effects are considered 'significant' depends on the environmental parameter assessed, but generally potential effects defined as 'Moderate' or greater significance would be identified as priorities for mitigation.
- 5.4.12 Where potential adverse impacts cannot be prevented or reduced, consideration has been given to the specification of measures to be included in the contract documents that offset or, in certain circumstances, provide compensation if legally required. Measures as stipulated in this ES would form contractual requirements on the contractor (or Transport Scotland where applicable).
- 5.4.13 The mitigation measures identified throughout this ES are summarised in Chapter 20 (Schedule of Environmental Commitments).

Residual Impacts

- 5.4.14 Residual Impacts sections within the chapters report the anticipated significance of impacts remaining following application of the proposed mitigation identified in the ES. Some measures that

are designed to mitigate an adverse impact may also result in an environmental improvement. In these instances, the residual effect is recorded as 'beneficial'.

Summary of Impacts and Mitigation

- 5.4.15 Chapter 19 (Assessment of Cumulative Effects) considers the potential for cumulative impacts, which are the combined impacts of the proposed Scheme on a particular resource or receptor or the effects that result from the incremental impact of the proposed Scheme when added to other 'reasonably foreseeable' developments including anticipated future elements of the A96 Dualling Programme. Reasonable foreseeable developments for inclusion in the cumulative assessment have been agreed with The Highland Council through the consultation process.
- 5.4.16 Chapter 21 (Summary of Significant Residual Impacts) provides a summary of those impacts still considered significant after successful implementation of any proposed mitigation.

Changes to Proposed Scheme Design

- 5.4.17 The assessment of potential impacts and the identification of mitigation measures in the ES are based on the DMRB Stage 3 design as described in Chapter 4 (The Proposed Scheme). As noted in Chapter 1 (Introduction), the design of the proposed Scheme may be refined, but would still be deemed to comply with this ES provided that such refinements to this design would be subject to environmental review to ensure that the effects would be no worse than those reported in this ES.

5.5 References

Reports and Documents

CH2M (*on behalf of Transport Scotland*) (2015). A96 Dualling Programme: Strategic Environmental Assessment - Tier 2 Environmental Report.

CH2M (*on behalf of Transport Scotland*) (2016). A96 Dualling Programme: Strategic Environmental Assessment - Post Adoption Statement.

Communities Scotland (2005). National Standards for Community Engagement.

Halcrow (*on behalf of Transport Scotland*) (2014) A96 Dualling Programme: Strategic Environmental Assessment – Tier 1 Environmental Report.

Highways Agency, Scottish Government, Welsh Assembly Government and The Department for Regional Development Northern Ireland (2008a). Design Manual for Roads and Bridges, Volume 11, Section 2, Part 5, HD205/08: Assessment and Management of Environmental Effects.

Highways Agency, Scottish Government, Welsh Assembly Government and The Department for Regional Development Northern Ireland (2008b). Design Manual for Roads and Bridges, Volume 11, Section 2, Part 3, HD47/08: Screening of Projects for Environmental Impact Assessment.

Highways Agency, Scottish Government, Welsh Assembly Government and The Department for Regional Development Northern Ireland (2008c). Design Manual for Roads and Bridges, Volume 11, Section 2, Part 3, HA204/08: Scoping of Environmental Impact Assessments.

Highways Agency (2009). Interim Advice Note (IAN) 125/09: Supplementary Guidance for Users of DMRB Volume 11 Environmental Assessment.

Highways Agency (2011). Interim Advice Note (IAN) 153/11: Guidance on the Environmental Assessment of Material Resources.

Highways Agency, Transport Scotland, Welsh Government and The Department for Regional Development Northern Ireland (2011). DMRB Volume 11, Section 3, Part 7, HA213/11: Noise and Vibration.

Highways England (2015). Interim Advice Note (IAN) 125/15: Environmental Assessment Update.

Jacobs (*on behalf of Transport Scotland*) (2014). A96 Dualling Inverness to Nairn (including Nairn Bypass): DMRB Stage 2 Scheme Assessment Report.

Jacobs (*on behalf of Transport Scotland*) (2015). A96 Dualling Inverness to Nairn (including Nairn Bypass) DMRB Stage 3: Environmental Impact Assessment: Screening and Scoping Report [Unpublished].

Jacobs, Faber Maunsell, Grant Thornton and Tribal Consulting (*on behalf of Transport Scotland*)(2008). Strategic Transport Projects Review. Environmental Report.

Scottish Executive (2007). Planning Advice Note (PAN) 81/2007: Community Engagement.

Scottish Government (2007). Planning Circular 8/2007: The Environmental Impact Assessment Regulations 1999 (Annex E - Environmental Impact Assessment of Trunk Road Projects)

Scottish Government (2010). Planning Advice Note (PAN) 3/2010 Community Engagement.

Scottish Government (2013). Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment.

Transport Scotland (2015). A96 Dualling Inverness to Aberdeen: Engaging with Communities.

Directives and Legislation

European Union (2011). Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment [2011].

European Union (2014). Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment [2014].

Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 1999, SI199/01.

Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011, SI2011/139.