

A9/A96 Inshes to Smithton

DMRB Stage 2 Scheme Assessment Report

Volume 1 – Main Report and Appendices

Part 3 – Environmental Assessment

October 2017



© Copyright 2017 Jacobs U.K. Limited. The concepts and information contained in this document are the property of Jacobs. Use or copying of this document in whole or in part without the written permission of Jacobs constitutes an infringement of copyright.

Limitation: This document has been prepared on behalf of, and for the exclusive use of Jacobs' client, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and the client. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this document by any third party.

Contents

Volume 1 – Main Report and Appendices

Part 1 – The Scheme

Part 2 – Engineering Assessment

Part 3 – Environmental Assessment

7	Overview of Environmental Assessment.....	7-1
7.1	Introduction.....	7-1
7.2	Environmental Assessment.....	7-1
7.3	Scope of Environmental Assessment.....	7-2
7.4	Structure of Environmental Assessment Report	7-2
7.5	Environmental Reporting	7-3
7.6	Consultation.....	7-5
7.7	References	7-7
8	Policies and Plans	8-1
8.1	Introduction	8-1
8.2	Approach and Methods	8-2
8.3	Summary of Policies and Plans.....	8-3
8.4	Assessment of Route Options Compliance.....	8-12
8.5	Summary of Policy Assessment.....	8-20
8.6	References	8-21
9	Air Quality	9-1
9.1	Introduction	9-1
9.2	Approach and Methods	9-1
9.3	Policies and Plans	9-11
9.4	Baseline Conditions.....	9-11
9.5	Impact Assessment	9-14
9.6	Potential Mitigation	9-22
9.7	Summary of Route Options	9-22
9.8	Scope of DMRB Stage 3 Assessment.....	9-22
9.9	References	9-22
10	Noise and Vibration.....	10-1
10.1	Introduction	10-1
10.2	Approach and Methods	10-1
10.3	Policies and Plans	10-8
10.4	Baseline Conditions.....	10-8
10.5	Impact Assessment	10-9
10.6	Potential Mitigation	10-25
10.7	Summary of Route Options	10-25
10.8	Scope of DMRB Stage 3 Assessment.....	10-28
10.9	References	10-28

11	Landscape and Visual	11-1
11.1	Introduction.....	11-1
11.2	Approach and Methods.....	11-1
11.3	Policies and Plans.....	11-8
11.4	Baseline Conditions.....	11-8
11.5	Impact Assessment.....	11-11
11.6	Potential Mitigation.....	11-23
11.7	Summary of Route Options.....	11-25
11.8	Scope of DMRB Stage 3 Assessment.....	11-28
11.9	References.....	11-28
12	Ecology and Nature Conservation	12-1
12.1	Introduction.....	12-1
12.2	Approach and Methods.....	12-1
12.3	Policies and Plans.....	12-6
12.4	Baseline Conditions.....	12-7
12.5	Impact Assessment.....	12-13
12.6	Potential Mitigation.....	12-19
12.7	Summary of Route Options.....	12-22
12.8	Scope of DMRB Stage 3 Assessment.....	12-22
12.9	References.....	12-23
13	Geology and Soils	13-1
13.1	Introduction.....	13-1
13.2	Approach and Methods.....	13-1
13.3	Policies and Plans.....	13-7
13.4	Baseline Conditions.....	13-7
13.5	Impact Assessment.....	13-13
13.6	Potential Mitigation.....	13-20
13.7	Summary of Route Options.....	13-22
13.8	Scope of DMRB Stage 3 Assessment.....	13-23
13.9	References.....	13-24
14	Road Drainage and the Water Environment	14-1
14.1	Introduction.....	14-1
14.2	Approach and Methods.....	14-1
14.3	Policies and Plans.....	14-14
14.4	Baseline Conditions.....	14-15
14.5	Impact Assessment.....	14-17
14.6	Potential Mitigation.....	14-34
14.7	Summary of Route Options.....	14-36
14.8	Scope of DMRB Stage 3 Assessment.....	14-39
14.9	References.....	14-40

15	Cultural Heritage	15-1
15.1	Introduction.....	15-1
15.2	Approach and Methods.....	15-1
15.3	Policies and Plans.....	15-5
15.4	Baseline Conditions.....	15-5
15.5	Impact Assessment.....	15-10
15.6	Potential Mitigation.....	15-18
15.7	Summary of Route Options.....	15-18
15.8	Scope of DMRB Stage 3 Assessment.....	15-20
15.9	References.....	15-21
16	People and Communities: Effects on All Travellers	16-1
16.1	Introduction.....	16-1
16.2	Approach and Methods.....	16-1
16.3	Policies and Plans.....	16-7
16.4	Baseline Conditions.....	16-7
16.5	Impact Assessment.....	16-15
16.6	Potential Mitigation.....	16-19
16.7	Summary of Route Options.....	16-20
16.8	Scope of DMRB Stage 3 Assessment.....	16-22
16.9	References.....	16-22
17	People and Communities: Communities and Private Assets	17-1
17.1	Introduction.....	17-1
17.2	Approach and Methods.....	17-1
17.3	Policies and Plans.....	17-7
17.4	Baseline Conditions.....	17-9
17.5	Impact Assessment.....	17-11
17.6	Potential Mitigation.....	17-26
17.7	Summary of Route Options.....	17-28
17.8	Scope of DMRB Stage 3 Assessment.....	17-30
17.9	References.....	17-31
18	Materials	18-1
18.1	Introduction.....	18-1
18.2	Approach and Methods.....	18-1
18.3	Legislative and Policy Background.....	18-7
18.4	Baseline Conditions.....	18-11
18.5	Impact Assessment.....	18-15
18.6	Potential Mitigation.....	18-22
18.7	Summary of Route Options.....	18-24
18.8	Scope of DMRB Stage 3 Assessment.....	18-26
18.9	References.....	18-27

Part 5 – Assessment Summary and Recommendation

Part 6 – Appendices

Volume 2 – Engineering Drawings

Volume 3 – Environmental Figures

7 Overview of Environmental Assessment

7.1 Introduction

- 7.1.1 This chapter outlines the general approach followed for the Design Manual for Roads and Bridges (DMRB) Stage 2 environmental assessment of the A9/A96 Inshes to Smithton route options.
- 7.1.2 This chapter considers the following;
- the scope of the environmental assessment;
 - the structure of the environmental assessment report; and
 - an overview of the environmental consultation process.
- 7.1.3 The objectives of the DMRB Stage 2 environmental assessment are to identify the factors and effects to be taken into account in the selection of a preferred option and to identify the environmental advantages, disadvantages and constraints associated with each route option. The assessment builds on the high-level environmental appraisal work undertaken previously for the A9/A96 Connections Study.
- 7.1.4 The study area for the Scheme is shown on Figure 7.1, with the main environmental designations and constraints within close proximity to the route options shown on Figure 7.2.

7.2 Environmental Assessment

Relevant Guidance

- 7.2.1 The requirement for EIA stems from the European Commission Directive 85/337/EEC, as amended by Directive 97/11/EC, regarding the assessment of the environmental effects of certain public and private projects and Directive 2003/35/EC regarding public participation. The EIA Directive has recently been updated and a new EU Directive (2014/52/EU) was adopted on 15 May 2014, which was transposed into UK legislation on 16 May 2017. In Scotland there are a number of EIA regulations, those relevant in relation to the construction of trunk roads are The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017. This will be of relevance to the EIA process which will be associated with Stage 3 of the DMRB process.
- 7.2.2 Annex E of Circular 8/2007 'The Environmental Impact Assessment (Scotland) Regulations 1999' (Scottish Government 2007) provides guidance on the Environmental Impact Assessment (EIA) of trunk road projects. Although the Regulations described above are now adopted for schemes going forward, the guidance contained in Circular 8/2007 in Annex E is still relevant to the Stage 2 assessment for the A9/A96 Inshes to Smithton scheme.
- 7.2.3 The DMRB sets out governmental guidance on the development of trunk road schemes. The environmental assessment has largely been undertaken based on the guidance provided in Volume 11 of the DMRB, which specifically provides guidance on Environmental Impact Assessment, including the level of assessment required at key stages of development and the requirements for reporting environmental effects. The assessment has also taken account of DMRB Interim Advice Notes (IANs), where available, and relevant guidance in respect of particular topics. The latter are published by a range of other public and professional organisations. Any modifications to the standard approach are highlighted in the individual topic sections.

7.3 Scope of Environmental Assessment

Route Options

- 7.3.1 Three route options, each with two variants (A and B) were considered in the environmental assessment and are reported separately. These are referenced in this report as follows:
- Option 1, Variant A (Shortened to Option 1A);
 - Option 1, Variant B (Shortened to Option 1B);
 - Option 2, Variant A (Shortened to Option 2A);
 - Option 2, Variant B (Shortened to Option 2B);
 - Option 3, Variant A (Shortened to Option 3A); and
 - Option 3, Variant B (Shortened to Option 3B).
- 7.3.2 For specific design details of each route option refer to Part 1, Chapter 3 (Description of Route Options) of this report.
- 7.3.3 The option numbering relates to the three different alignments to the south of U1124 Caulfield Road, whilst the variant letters relate to the two different alignments to the north of U1124 Caulfield Road. Options that have the same alignment to the south of U1124 Caulfield Road have been given the same number (i.e. 1, 2 or 3). To the north, for option variants that pass to the west of Ashton Farm, this number is followed by 'A' (e.g. 1A); for option variants that pass to the east of Ashton Farm, this number is followed by 'B' (e.g. 1B). These are all shown on Figure 7.3 to Figure 7.5.

7.4 Structure of Environmental Assessment Report

Environmental Assessment Topics

- 7.4.1 In accordance with DMRB Volume 11, the following parameters have been subject to environmental assessment (reported in Chapters 9 to 18 respectively):
- Chapter 9: Air Quality.
 - Chapter 10: Noise and Vibration.
 - Chapter 11: Landscape and Visual.
 - Chapter 12: Ecology and Nature Conservation.
 - Chapter 13: Geology and Soils.
 - Chapter 14: Road Drainage and the Water Environment.
 - Chapter 15: Cultural Heritage.
 - Chapter 16: People and Communities - Effects on All Travellers.
 - Chapter 17: People and Communities - Community and Private Assets.
 - Chapter 18: Materials.

Policies and Plans

- 7.4.2 The assessment of policies and plans has followed guidance set out in DMRB Volume 11, Section 3, Part 12 'Impact of Road Schemes on Policies and Plans' (Highways Agency, Scottish Office Development Department, The Welsh Office, The Department of Environment Northern Ireland 1994).

- 7.4.3 The DMRB Stage 2 assessment of the route options in the context of national, regional and local planning policies is summarised in Chapter 8 (Policies and Plans). This includes a review of national, regional and local planning policy and guidance documents, and consideration of potential policy conflicts or compliance of the route options. A more detailed compliance check of the policies and plans relevant to each specialist topic area against the proposed options is presented in Part 6 (Appendices), Appendix A8.2 (Assessment of Development Plan Policy Compliance).
- 7.4.4 DMRB IAN 125/15 (Highways England, Transport Scotland, Welsh Assembly Government, The Department for Regional Development Northern Ireland 2015), suggests that the policy compliance assessment should be incorporated into each chapter. However, for the DMRB Stage 2 assessment a separate policies and plans chapter has been prepared (Chapter 8: Policies and Plans). This is because incorporating the assessment into each topic chapter is considered to be more complex and results in repetition when there are policies which cover a number of different specialist topics.

7.5 Environmental Reporting

Chapter Structure

- 7.5.1 Each environmental chapter listed in paragraph 7.4.1 provides the following:
- an introduction to the subject area;
 - approach and methods used in the assessment;
 - baseline conditions (i.e. the 'existing' situation);
 - potential impacts of the route options;
 - potential mitigation, focussing on mitigation that would be developed for the preferred option during the DMRB Stage 3 assessment;
 - summary of the route options;
 - scope of the DMRB Stage 3 Assessment, highlighting components that should be considered within the DMRB Stage 3 Assessment; and
 - references.

General Approach

Baseline Conditions

- 7.5.2 The glossary of terms in DMRB (Volume 11, Part 2, Section 7) describes baseline conditions as "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". The assessment of impacts on each environmental parameter has been undertaken in comparison to baseline conditions, or for certain assessments the anticipated future situation in the absence of the proposed Scheme, determined through site visits/field survey (paragraph 7.5.3), desk-based review and consultation (Section 7.6: Consultation). Baseline conditions generally describe the existing environmental conditions in the study area as pertinent to the particular environmental parameter.
- 7.5.3 As part of the DMRB Stage 2 assessment process, the following environmental site visits/surveys were carried out to inform the assessment:
- extended Phase 1 habitat survey;
 - landscape and visual survey;
 - cultural heritage site inspections; and

- geomorphology site visit.

Study Area

- 7.5.4 In accordance with DMRB, Volume 11, Section 2, Part 5 'Assessment and Management of Environmental Effects' (HA205/08), (Highways Agency, Scottish Government, Welsh Assembly Government, The Department for Regional Development Northern Ireland 2008), study areas have been defined individually for each environmental topic. Each study area reflects the geographic scope of the potential impacts relevant to that topic and the extent of information required to assess the potential impacts. Details of the study area extents for each parameter are provided in the specialist environmental chapters. A 500m study area taken from the outermost edge of all of the route options is shown in Figure 7.1.

Potential Impacts

- 7.5.5 The significance of an environmental effect is a function of the 'value' or 'sensitivity' of the receptor and the 'magnitude' or 'scale' of the impact. This process is described in the respective environmental chapters, and where this approach was not appropriate alternative approaches are described and justified.
- 7.5.6 Typical descriptors and criteria for determining the value/sensitivity of a receptor, the magnitude of impact and the significance of effect are described in DMRB HA205/08. For a small number of topics, additional descriptors and criteria are provided in the relevant Part of DMRB, Volume 11, Section 3 (e.g. noise and vibration, landscape effects and road drainage and the water environment). The assessment methodologies outlined in the DMRB guidance for landscape effects and for road drainage and the water environment use a slightly different terminology and/or scale. For the remaining topics, there is little or no additional guidance on the assessment of significance of effects in the DMRB beyond that detailed in HA205/08.
- 7.5.7 It should be noted that the magnitude and significance reported within the 'Impact Assessment' section of each chapter has been considered in the absence of mitigation. The 'Summary of Route Options' assessment then takes into account potential mitigation to determine, where possible, the likely residual impacts.
- 7.5.8 For the purposes of this DMRB Stage 2 assessment, construction impacts are considered temporary. Impacts may start during construction (e.g. land-take) but if they persist during operation they are considered operational impacts. Any exceptions to this are noted.
- 7.5.9 Operational impacts are considered long-term or permanent, again with any exceptions being noted.

Potential Mitigation

- 7.5.10 As noted within the respective environmental chapters, the design at DMRB Stage 2 has not been sufficiently developed to allow mitigation measures to be developed in detail. The assessment therefore identifies potential mitigation taking into account best practice, legislation and appropriate guidance, which will be further developed and refined during the DMRB Stage 3 assessment. As part of DMRB Stage 3, the design of the preferred option would be reviewed and, where possible, the preferred option would be further developed (pre-DMRB Stage 3 assessment mitigation) to minimise the impacts on the environment.
- 7.5.11 Generally, potential impacts of 'Moderate' or above significance would be identified as priorities for mitigation. However, the need for mitigation will be confirmed during the assessment of the preferred option at DMRB Stage 3.

Summary of Route Options

7.5.12 This section provides a summary of the environmental assessment for the route options, and, where possible, takes into account potential mitigation to provide an indication of the likely residual impacts.

7.6 Consultation

7.6.1 Consultation has been undertaken in accordance with guidance provided in PAN 1/2013: Environmental Impact Assessment (Scottish Government 2013) and with reference to PAN 3/2010: Community Engagement (Scottish Government 2010).

7.6.2 As best practice, public participation is being encouraged and actively sought as part of the progression of the A9/A96 Inshes to Smithton scheme. Where appropriate, issues raised through the public participation process are taken into consideration as part of the environmental assessment process. Consultations will continue throughout the EIA process.

7.6.3 At DMRB Stage 2, the consultation process aims to:

- ensure that statutory consultees and other bodies with a particular interest in the environment are informed of the proposal and provided with an opportunity to comment;
- obtain baseline information regarding existing environmental site conditions;
- establish key environmental issues and identify potential impacts to be considered during the environmental assessment;
- identify those issues which are likely to require more detailed study and those which can be justifiably excluded from further assessment; and
- provide a means of identifying the most appropriate methods of impact assessment.

DMRB Stage 2 Consultation

7.6.4 Consultation letters were issued to a number of statutory and non-statutory environmental consultees (Table 7.1) in April 2016. The selection of non-statutory consultees was based on guidance from the environment specialists, who identified consultees of importance to their area of expertise.

Table 7.1: List of Consultees for DMRB Stage 2 Consultation

Statutory Consultees
Historic Environment Scotland (HES)
Marine Scotland
Scottish Environmental Protection Agency (SEPA)
Scottish Natural Heritage (SNH)
The Highland Council - Planning and Building Standards
Non-Statutory Consultees
British Horse Society
Scottish Badgers
ScotWays
The Highland Council - Access Officer, Biodiversity Officer, Contaminated Land and County Archaeologist.

7.6.5 The purpose of this consultation was to:

- notify the consultees about the scheme proposals;
- provide them with an opportunity to comment on these proposals; and

- request information about environmental constraints that may be relevant to the environmental assessment (including, where applicable, specific data requests).

- 7.6.6 In addition, statutory consultees were sent the proposed methodology for the DMRB Stage 2 environmental assessment for comment. Drawings showing the alignments of the two best performing options from the A9/A96 Connections Study (Options C1 and D1) were enclosed with the letters, and, where a specific data request was included in the letter, figures showing the relevant study areas were also enclosed. Therefore, this consultation gave consultees the opportunity to provide relevant baseline information and identify any key issues that should be considered in the assessment.
- 7.6.7 The baseline data and responses received have been taken into account in the development of the route options and the subsequent environmental assessment.

DMRB Stage 2 Consultation Responses

Consultee Feedback

- 7.6.8 Feedback from the DMRB Stage 2 consultation letters was collated and, where appropriate, incorporated into the design of the route options and environmental assessment. The baseline information provided by consultees was also used to inform the assessment and is reported separately for each environmental topic area.

DMRB Stage 3 Consultation

- 7.6.9 At the next stage of the assessment process, DMRB Stage 3 consultation letters will be issued to environmental consultees to invite comments, request more detailed information and inform the development of appropriate mitigation for the preferred option.
- 7.6.10 In addition to the DMRB Stage 3 letters, further consultation will be required with statutory consultees, non-statutory consultees and landowners. The nature of these consultations is yet to be confirmed; however, they are likely to be in the form of stakeholder forums, workshops and/or one-to-one meetings. Ongoing liaison will occur throughout the design process in the form of meetings, telephone discussions, emails and letters.

Public Exhibitions

- 7.6.11 The work Transport Scotland is progressing on the A9/A96 Inshes to Smithton scheme includes regular engagement with local communities and other stakeholders, which started with the public exhibitions held in 2012.
- 7.6.12 During the 2012 public exhibitions, Transport Scotland presented proposals for a dual carriageway trunk road between Inshes and Smithton. Following feedback from these exhibitions, further appraisal work was carried out using updated transport and land use information.
- 7.6.13 In 2013, Jacobs was commissioned by Transport Scotland to develop and assess a number of options against refined transport planning objectives and Scottish Transport Appraisal Guidance (STAG) criteria (A9/A96 Connections Study). The Study also included a high-level environmental appraisal of the proposed route options. The results of the Study were presented at public exhibitions held in May and June 2014. Following these public exhibitions, Options C and D were announced as the options to be progressed to the next stage of design development.
- 7.6.14 Since the 2014 public exhibitions, Options C and D have been further developed into three route options with A and B variants. These route options formed the basis of the DMRB Stage 2 assessment presented in this report. Public exhibitions were held in August 2016 to present the route options under consideration. These exhibitions gave members of the public the opportunity to provide comment and feedback (refer to Part 2: Chapter 4, Section 4.3 Design Considerations).

- 7.6.15 It is envisaged that further public exhibitions will be held to present the preferred option to the public once it has been selected and again during the DMRB Stage 3 assessment, this will provide the public with further opportunity to comment.

7.7 References

Jacobs (2015) (*on behalf of Transport Scotland*). A9/A96 Connections Study.

Highways Agency, Scottish Office Development Department, The Welsh Office, The Department of Environment Northern Ireland (1994). DMRB Volume 11, Section 3, Part 12 'Impact of Road Schemes on Policies and Plans'.

Highways Agency, Scottish Government, Welsh Assembly Government, The Department for Regional Development Northern Ireland (2008). DMRB, Volume 11, Section 2, Part 5 'Assessment and Management of Environmental Effects' (HA205/08).

Highways England, Transport Scotland, Welsh Assembly Government, The Department for Regional Development Northern Ireland (2015), DMRB Interim Advice Note (IAN) 125/15: Environmental Assessment Update. (HA125/15).

Scottish Government (2007). Circular 8/2007: Environmental Impact Assessment (Scotland) Regulations 1999.

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

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