

Environmental Statement

1 Introduction

1.1 Background to the Scheme

The A68 trunk road extends southwards from the outskirts of Edinburgh to Darlington, passing through Midlothian, the Scottish Borders, Northumberland, Durham and Newcastle Upon Tyne. The Scottish section of the A68 is approximately 95km in length.

On behalf of the Scottish Office, a Route Action Plan (RAP) was produced for the A68 trunk road by the Borders Regional Council and the Lothian Regional Council in September 1996 (Scottish Borders Council, 1996), which then led to the production of a Firm Strategy Report in October 1997 for the A68 trunk road between Dalkeith and the Melrose bypass (Scottish Borders Council, 1997). One of the objectives of this study was to examine the potential for improvement of the A68 through a programme of local enhancement schemes to provide appropriate overtaking opportunities, thereby reducing platoons of traffic, driver frustration and accidents. The RAP included a preliminary environmental assessment of the A68 based on guidance and subject headings contained within Volume 11 of the Design Manual for Roads and Bridges (DMRB).

RAPs were also developed for other sections of trunk road network in Scotland and on completion of these reports, the Scottish Executive undertook a review of all RAPs for the trunk road network in Scotland. As a result of this review an announcement was made in March 2003 that ten new road improvement schemes would be developed across Scotland. Two of these schemes arose from the A68 RAP, namely the A68 Soutra South to Oxton Improvement and the A68 Pathhead to Tynehead Junction Improvement was the other.

In August 2003, Mouchel Parkman (MP; now Mouchel), in association with Scottish Borders Council (SBC), SIAS and Young Associates (Environmental Consultants) Ltd (YA: now AMEC Earth & Environmental (UK) Ltd (AMEC)), were commissioned by the then Scottish Executive Enterprise, Transport and Lifelong Learning Department (SE) (now Transport Scotland (TS)), as part of the Multiple Framework Agreement (MFA), to progress the development of the A68 Soutra South to Oxton Improvement Scheme. This commission comprises the investigation, assessment and design of road improvement options to allow a preferred scheme to be selected, followed by contract preparation, assistance with the tender process and supervision during construction works.

1.2 Existing Road Network

The A68 trunk road is largely a two-lane single carriageway providing the main link for the Central Borders to Edinburgh, the Central Belt and the North of Scotland. Along with the A697 Carfraemill – Greenlaw – Coldstream road, the route carries long distance traffic from the North East of England through the Scottish Borders to

Edinburgh as an alternative to the A1. Various communities along the route rely on the facility provided by this link to service their communication and transport needs.

The route of the current A68 has not changed significantly during the period that Ordnance Survey Maps are available, with the one exception of the junction of the A68 and the A697 at Carfraemill. A small bypass to the south of the Carfraemill Hotel was constructed and the A697 was realigned to form a simple T-junction. Although the exact date of when this occurred is unknown, it first appears on the Epoch a5 (1966) historical map. The T-junction was replaced with a roundabout in 1993. The only other change within this area was the construction of the northbound Soutra South climbing lane.

Within the area of the proposed scheme, the A68 is the only route for through traffic. There is a network of minor roads to either side of the A68 but this is confined by the valley sides and only carries local traffic. The C84 provides access off the A68 to the village of Oxton, whilst the C83 provides a route from the A68 to the north of Oxton and to Kirktonhill. The D47/5 takes local traffic from the A68 towards Carfrae and loops round to meet the A697 near to the Carfraemill Roundabout.

Due to physical limitations in terms of existing topography, infrastructure and the presence of several watercourses, the A68 is an undulating route with many bends. Drivers therefore experience limited overtaking opportunities along much of the A68, which leads to the formation of platoons of traffic and creates driving conditions that lower average speeds, increases driver frustration and the potential for accidents.

Traffic flows along the A68 are typical of those levels associated with rural locations and are generally low. In 2004, Annual Average Daily Traffic flow (AADT) was recorded at around 8900 vehicles, with the proportion of Heavy Goods Vehicles (HGVs) being 8%.

1.3 Scheme Location

The location of the A68 Soutra South to Oxton Improvement Scheme is illustrated in Figure 1.1 and described further in Chapter 3.

The proposed scheme extends from the bottom of the Soutra South climbing lane to the north end of the differential acceleration lane (DAL) at Carfraemill Roundabout, a distance of approximately 2.15km. There is a changeover section at the C84 junction to Oxton. The changeover incorporates a ghost-island right turning lane for the C84 junction. North of the changeover there is dedicated southbound overtaking for 1290m. South of the changeover the existing DAL is extended to provide 460m of dedicated northbound overtaking.

1.4 Development of a Preferred Scheme

In light of the completion of the RAP study, which contained a review of potential environmental issues, it was decided that a full Design Manual for Roads and Bridges

(DMRB) Stage 1 assessment was unnecessary in order to avoid repetition of work. However a Stage 1 Environmental Update Report was prepared in accordance with the DMRB in May 2004 (Young Associates, 2004). This report provided environmental information to update and supplement that provided in the 1997 RAP, based on a broadly defined route corridor and an updated consultation exercise. The report considered each of the twelve DMRB environmental parameters, providing a summary of existing baseline information, an indication of key environmental issues associated with improvement options and recommendations for further investigation at DMRB Stage 2.

At Stage 2, five initial scheme options and associated sub-options were identified for improving this section of the A68 trunk road. A workshop was subsequently held in July 2004 with the Scottish Executive to discuss the various options, whereby it was concluded that only two of the options were sufficiently robust to justify a Stage 2 Assessment. Both of these options involved construction using online widening techniques. The remaining three options were not taken forward at this time due to issues relating to safety and environmental impact. The two chosen scheme options (Option 1 and Option 2) were subjected to a full DMRB Stage 2 assessment in terms of environmental, engineering and traffic / economic criteria (YA, 2005; SBC, 2005 and SIAS, 2005). As a result, Option 2 (a WS2+1 scheme) was selected as the preferred route and has been taken forward for a DMRB Stage 3 assessment (further details on the two options assessed and the subsequent preferred route are provided within Chapter 2).

1.5 Stage 3 Environmental Assessment

1.5.1 Purpose of the Environmental Assessment

The DMRB Environmental Assessment process (Highways Agency *et al.*, 1993), is an integral part of road scheme design / construction / operation and is used as a means of informing the decision making process throughout the design of the scheme so that potentially significant environmental impacts can be alleviated by, where practicable, incorporating measures to avoid, reduce, remedy or offset any predicted adverse effects.

The purpose of the Stage 3 Environmental Assessment (EA) is to provide an evaluation of the preferred scheme through a systematic investigation of the likely impacts on the biological, physical, geomorphological and historical environment as well as on human welfare and current or future use of the environment. The Stage 3 EA helps to ensure that the importance of predicted environmental effects, and the scope for reducing them, is properly understood and fully incorporated into the engineering and economics of a scheme.

In summary, The Roads (Scotland) Act, 1984 (as amended by Part III of the Environmental Impact Assessment (Scotland) Regulations 1999 ('EIA Regs')) requires that certain road development projects (as listed within Annex I and II of Directive

85/337/EEC and amended by Directive 97/11/EC) are subjected to a full environmental impact assessment (EIA) and that an Environmental Statement (ES) is produced. A screening exercise can be completed and associated determination produced / published if it is unclear whether a particular development is considered EIA development or not, while a scoping exercise for EIA development is completed with the relevant planning authority in order to obtain an opinion as to the information to be included within an ES. An ES is then produced and submitted, to the relevant planning authority and other statutory / non-statutory consultees, as part of the planning application process for the development.

Part III, section 49(7) of the EIA Regs requires certain information to be included in an ES for EIA development. Annex IV of the Directive and Part III of the EIA Regs detail these requirements. Parts 1 – 7 of the Annex identify the following information:

- Description of the development, including in particular:
 - a description of the physical characteristics of the whole project and the land-use requirements during the construction and operational phases;
 - a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used;
 - an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc.) resulting from the operation of the proposed project.
- An outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account the environmental effects.
- A description of the aspects of the environment likely to be significantly affected by the proposed project, including in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.
- A description of the likely significant effects of the proposed project on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, beneficial and adverse effects of the development resulting from:
 - the existence of the project;
 - the use of natural resources;
 - the emission of pollutants, the creation of nuisances and the elimination of waste; and
 - description by the developer of the forecasting methods used to assess the effects on the environment.

- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information provided under the above bullet points.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information.

Part III, section 49 of the EIA Regs also identifies the following information requirements:

- A description of the project comprising information on the site, design and size of the project.
- A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects.
- The data required to identify and assess the main effects, which the project is likely to have on the environment.
- An outline of the main alternatives studied by the Scottish Ministers and an indication of the main reason for their choice, taking into account the environmental effects.
- A non-technical summary of the information mentioned above.

The EA and ES for the proposed scheme have been prepared in accordance with the requirements of Part III of the EIA Regs.

Circular 8 2007 states that the information in the ES must be summarised in a non-technical summary (Annex E). The non-technical summary is important for ensuring that the contents of the ES are fully understood by the general public. The ES may contain technical data and analysis in a form, which is not readily understandable by the layperson. The Non-technical Summary sets out the main findings of the ES in non-technical language.

1.5.2 The Need for an Environmental Statement

In accordance with Part III of the EIA Regs, a determination (Record of Determination (ROD)) was carried out to assess whether a formal ES would be required for the proposed road improvement scheme, which falls within Annex II criteria. The proposed scheme exceeds the relevant threshold for EIA development stated in Annex II / Annex E guidance i.e. greater than 1 hectare in area or 2km in length and the screening exercise confirmed that an Environmental Statement was required due to the potential for adverse impacts upon a European designated site (River Tweed Special Area of Conservation (SAC)).

1.5.3 The Assessment Team

This ES has been prepared by AMEC, as MFA Environmental Co-ordinators, with specific specialist chapters provided by AMEC (Ecology, Cultural Heritage and Policies and Plans) SBC (Land Use; Pedestrians, Cyclists, Equestrians and Community Effects; Vehicle Travellers; Water Quality and Drainage; Geology and Soils and Landscape) and Wardell Armstrong (Traffic Noise and Vibration and Air Quality). All specialists have then provided input to Disruption due to Construction, with document co-ordination completed by AMEC.

1.6 Report Structure

This ES comprises of three parts in accordance with DMRB Volume 11, Section 4, Part 3. These are:

Volume 1 - a comprehensive document drawing together all the relevant information about the scheme and providing an assessment of significant environmental impacts;

Volume 2 – supporting information/graphics referred to during the detailed assessment of significant environmental impacts; and

Non-technical Summary (NTS) - outlining the findings of Volume 1 in simplistic terms for easy understanding by members of the public.

The main text (Volume 1) is presented in 19 chapters. Chapters 1 and 2 comprise the introduction and background to the scheme, the scheme objectives, a detailed scheme description and a review of the alternative scheme options considered during the DMRB Stage 2 assessment process. Chapter 3 contains a summary of the general approach and methods used for the EIA and Chapter 4 provides the results of the consultation exercises undertaken with key statutory and non-statutory consultees (during all DMRB environmental assessment stages). The environmental assessment of the relevant DMRB subject areas is contained within Chapters 5 through to 16 (with subsections on assessment methods, baseline conditions, predicted impacts, mitigation measures and residual impacts). Chapter 17 summarises the main environmental impacts identified from the overall EA process. Chapter 18 collates all the mitigation measures identified throughout the Environmental Statement for ease of reference. It also provides a record of commitments that the Contractor will be obliged to adhere to throughout the Contract period. Lastly, Chapter 19 lists the references used throughout the report.

For Volume 2, figures are numbered in accordance with the relevant chapter number, while the appendices are numbered sequentially and do not relate to the chapter headings.

A NTS is provided at the beginning of the ES and this presents a concise overview of the contents of the Environmental Statement and the key issues associated with the proposed scheme. The NTS is also available as a separate report.

Copies of this ES and/or the NTS can be obtained from:

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