Dear Sir/Madam

THE ROADS (SCOTLAND) ACT 1984
THE ACQUISITION OF LAND (AUTHORISATION PROCEDURE) (SCOTLAND) ACT 1947

M80 STEPPS TO HAGGS ROAD SCHEME
THE SCOTTISH MINISTERS’ DECISION

1. This letter contains the Scottish Ministers’ decision on the draft Orders listed below in connection with the M80 Stepps to Haggs Road Scheme. The Scottish Ministers have decided to make the Orders, subject to certain modifications.

Background

2. The Scottish Executive published sixteen draft orders relating to the scheme under the Roads (Scotland) Act 1984 (as amended). The Draft Orders for Phase 1 were advertised in December 2003 and the draft compulsory purchase order (CPO) in April 2004. Orders for Phases 2 and 3 were advertised in November 2004 with the CPOs following in December 2004. The Draft Orders are as follows:

Phase 1 Mollinsburn to Auchenkilns

- The M80/M73 Special Roads (Mollinsburn to Auchenkilns) Scheme 200_.
- The A80 Trunk Road (Mollinsburn to Auchenkilns) (Side Roads) Order 200_.
- The A80 Trunk Road (Mollinsburn to Auchenkilns) (Prohibition of Specified Turns) Order 200_.
- The M80 Special Road (Mollinsburn to Auchenkilns) Appropriation Order 200_.
- The M80/M73 Special Roads (Mollinsburn to Auchenkilns) Compulsory Purchase Order 200_.

**Phase 2 Auchenkilns to Haggs**

- The M80 Special Road (Auchenkilns to Haggs) Scheme 200_.
- The A80 Trunk Road (Auchenkilns to Haggs) (Side Roads) Order 200_.
- The M80 Special Road (Auchenkilns to Haggs) Appropriation Order 200_.
- The M80 Special Road (Auchenkilns to Haggs) Compulsory Purchase Order 200_.

**Phase 3 Moodiesburn Bypass**

- The M80/M73 Special Roads (Moodiesburn Bypass) Scheme 200_.
- The M80/M73 Special Roads (Moodiesburn Bypass) (Side Roads) Order 200_.
- The M80/A80 Trunk Roads (Stepps to Moodiesburn) Detrunking Order 200_.
- The Stepps Bypass (M80) (City of Glasgow District Boundary to Crow Wood) Special Road (Variation) Scheme 200_.
- The Stepps Bypass (M80) (City of Glasgow District Boundary to Crow Wood) (Connecting Roads) Special Road (Revocation) Scheme 200_.
- The M80/M73 (Moodiesburn Bypass) Special Roads (Extinguishment of Public Rights of Way) Order 200_.
- The M80/M73 Special Roads (Moodiesburn Bypass) Compulsory Purchase Order 200_.

3. An Environmental Statement, an addendum and an associated Non Technical Summary were also published with the draft orders.

4. A number of objections to the draft Orders were lodged and were not withdrawn. The objections were subsequently considered at a public local inquiry (PLI), held between 3-27 October 2005 by Mr David N Gordon BSc (Hons) MSc MRTPI. A copy of the report of the inquiry is enclosed for those who represented the objectors at the PLI. The report is also available on the Scottish Executive website [www.scotland.gov.uk](http://www.scotland.gov.uk). Paper copies are available by telephoning 0131 244 0838.

**Evidence at the Inquiry**

5. A factual background of the road proposals is contained in Chapter 1 of the report. The evidence led by the parties to the inquiry is reported in Chapters 2, 3 and 4. Those who attended the inquiry are listed in Appendix 1 to the PLI report.

**Consideration by the Reporter**
6. The Reporter’s findings of fact are in Chapter 5 of the report. His conclusions and recommendations are presented in Chapter 6.

**The Scottish Ministers’ Decision**

7. The Scottish Ministers have carefully considered all of the evidence presented to the inquiry, including written submissions, the Reporter’s findings of fact and his conclusions and recommendations. They accept the Reporter’s findings of fact and agree with his reasoning and conclusions and adopt them for the purposes of their own decision. Careful consideration has also been given to the Environmental Statement and the comments made by the consultation bodies defined in terms of the Roads (Scotland) Act 1984.

8. The Reporter has recommended that, provided the Scottish Ministers are satisfied that the proposals would not breach the Human Rights Act 1998, the Orders and Scheme should be authorised, subject to a number of amendments.

9. The Scottish Ministers have considered whether proceeding with the scheme might interfere with human rights and have satisfied themselves that the significant benefits of the scheme for the general public are sufficient to outweigh the disadvantages for individuals. In coming to this decision, Scottish Ministers have assessed that a fair balance is being struck between the competing interests of the individuals affected and the public interest in the project proceeding, with suitable noise mitigation measures including noise bunds and a programme of landscaping and fencing. The Scottish Ministers will only acquire land which is necessary for the implementation of the scheme.

10. Scottish Ministers have also considered the arguments both for and against an off-line Kelvin Valley option and remain of the opinion that, because of the potentially significant environmental impacts, the on-line route through Cumbernauld is the only option.

11. Accordingly, the Scottish Ministers accept the Reporter’s recommendation that the Scheme and Orders should be made subject to the amendments listed in paragraph 6.5 of the PLI report, replicated in the Annex to this letter.

12. The foregoing decision by the Scottish Ministers is final but any person wishing to question the validity of the decision may apply to the Court of Session within 6 weeks of the date on which the notice of the making of the Orders is first published.

13. A copy of this letter has been sent to all objectors to the road and scheme proposals.

Yours faithfully

**JOHN EWING**

**Head of Transport Group**
ANNEX

M80 STEPPS TO HAGGS ROAD SCHEME
THE SCOTTISH MINISTERS’ DECISION

The Scottish Ministers have decided that all the draft Orders and Schemes should be confirmed subject to the following amendments:

The M80/M73 Special Roads (Moodiesburn Bypass) (Side Roads) Order 200
• Alterations and additions to text in Part 5, and associated plans

The M80/M73 Special Roads (Moodiesburn Bypass) (Extinguishment of Public Rights of Way) Order 200
• Alterations to route of right of way

The A80 Trunk Road (Auchenkilns to Haggs) (Side Roads) Order 200
• Alteration to route of proposed cycle track

The M80 Special Road (Auchenkilns to Haggs) Compulsory Purchase Order 200
• Plots 649 and 659 to be removed
• Plots 834 and 847 to be reduced
• Plots 825 and 826 to be amended to permanent servitude
• Plot 828 to be split, with part of plot amended to permanent servitude

The M80/M73 Special Roads (Moodiesburn Bypass) Compulsory Purchase Order 200
• Plots 1003, 1307, 1311, 1503, 1504, 1505, 1514, 1515, 1516 and 1601 to be removed
• Plots 1001, 1020, 1210 and 1212 to be reduced

Bus Freight & Roads Division
July assess whether a fair balance is being struck between the competing interests of the individual’s affected and the public interest in the project proceeding 2006
ROADS (SCOTLAND) ACT 1984

REPORT OF PUBLIC LOCAL INQUIRY

M80 UPGRADE – STEPPS TO HAGGS

Report: David N Gordon BSc(Hons) MSc MRTP

Dates of inquiry: 3-27 October 2005

## CONTENTS

Preamble

### Chapters

1. Factual background  3
2. General case for trunk roads authority  
   (including responses to non-statutory objections)  9
3. Cases for non-statutory objectors  55
4. Cases for statutory objectors, and trunk roads authority’s responses 
   to site-specific matters  71
5. Findings of fact  101
6. Conclusions and recommendations  116

### Appendices

1. Parties who appeared at inquiry  118
2. Documents  120
In accordance with my minute of appointment dated 2 June 2005, I held a public local inquiry into objections to various draft Orders regarding the M80 Upgrade – Stepps to Haggs.

I held a pre-inquiry meeting in Cumbernauld Town Hall on 6 June 2005. A note of that meeting was issued to parties on 13 June, and a copy has been placed on the case file.

The inquiry, which was held in the Westerwood Hotel, Cumbernauld, started on 3 October 2005, sat on 12 days, and concluded on 27 October. On 25 October I made an accompanied inspection of the general area, and on 16 November I made an accompanied inspection of 4 of the statutory objectors’ properties. I also made unaccompanied inspections of the area on various occasions before and after the inquiry.

Oral evidence was presented to the inquiry on behalf of the trunk roads authority, the Cumbernauld Community Councils’ Umbrella Group, one statutory objector (Mr Albert MacBeath) and 4 other objectors (Councillor Gordon Murray, Mrs Rosemary McKenna MP, Mr Sam Mitchell and Mr Jim McKenna).

A further 17 statutory objectors maintained their objections. About 600 letters were received from non-statutory objectors. Some 70 letters of support were also received.

The report contains 6 chapters: chapter 1 – factual background; chapter 2 – general case for trunk roads authority (including responses to non-statutory objections); chapter 3 – cases for non-statutory objectors; chapter 4 – cases for statutory objectors, and trunk roads authority’s responses to site-specific matters; chapter 5 – findings of fact; and chapter 6 – conclusions and recommendations. Appendix 1 contains a list of the parties who appeared at the inquiry; and appendix 2 contains a list of parties’ documents.

A number of objections were withdrawn before the start of the inquiry, and others were withdrawn in the course of the inquiry. The statutory objectors who withdrew their objections are identified in chapter 4, at paragraph 4.7.
8. Several letters and emails were received after the close of the inquiry, and they have been placed on the case file. I have not taken them into account in my report.

**Abbreviations used in this report**

- **BCR**: benefit to cost ratio
- **CCC**: Cumbernauld Community Councils’ Umbrella Group
- **CO₂**: carbon dioxide
- **CPO**: compulsory purchase order
- **CSTCS**: Central Scotland Transport Corridor Studies
- **CSTM3a**: Central Scotland Transport Model version 3a
- **DMRB**: Design Manual for Roads and Bridges
- **EIA**: environmental impact assessment
- **ES**: environmental statement
- **HBM**: Historic Buildings and Monuments
- **HS**: Historic Scotland
- **KVR**: Kelvin Valley Route
- **MSA**: motorway service area
- **NAM**: New Appraisal Methodology
- **NLC**: North Lanarkshire Council
- **NO₂**: nitrogen dioxide
- **NPPG**: National Planning Policy Guideline
- **NPV**: net present value
- **PAN**: Planning Advice Note
- **PM₁₀**: particulate matter less than 10 micrometres in diameter
- **SDD**: Scottish Development Department
- **SEPA**: Scottish Environment Protection Agency
- **SINC**: Site of Importance for Nature Conservation
- **SNH**: Scottish Natural Heritage
- **SPP**: Scottish Planning Policy
- **SSSI**: Site of Special Scientific Interest
- **STAG**: Scottish Transport Appraisal Guidance
- **SUDS**: sustainable urban drainage systems
- **TAG**: Transport Analysis Guidance
- **TRA**: trunk roads authority
- **UNESCO**: United Nations Educational, Scientific and Cultural Organisation
- **WHO**: World Health Organisation
CHAPTER 1

FACTUAL BACKGROUND

Introduction

1.1 The existing A80 forms part of the national strategic road network, connecting the M80 from Glasgow and the M73 from the south to Stirling and the north and the M876 to the Kincardine Bridge and Fife. The A80 between Stepps and Haggs is a 16km length of all-purpose dual carriageway. It is the only non-motorway section between Glasgow and the north end of the M9 at Dunblane.

1.2 Under current conditions, during peak hours, the level of traffic is nearing the generally accepted maximum operational flow for a dual 2-lane carriageway. Its operational performance is also adversely affected by the high proportion of heavy goods vehicles which use it, and by its substandard alignment and junctions. Congestion occurs on a daily basis, and accidents and breakdowns cause widespread disruption.

1.3 Much of the carriageway is near the end of its structural life, and major maintenance work will be required soon.

1.4 For much of its length between Stepps and Haggs, the A80 is close to settlements. At the south it lies next to Muirhead, Chryston and Moodiesburn. Further north it runs through the middle of Cumbernauld. As a result, a large number of residents are affected by traffic noise and other impacts.

Historical development of proposals and policy

1.5 Studies into the upgrading of the A80 between Stepps and Haggs have been going on since 1968. In 1972 the then Secretary of State announced that the A80 upgrade would be on a line to the north of Cumbernauld. In 1975 the then Scottish Economic Planning Department approved in principle the Cumbernauld Development Corporation’s outline plan for the northern extension of the town (CG/BJ/01). This plan showed a ‘motorway band of interest’ to the north of the town (CG/BJ/12).

1.6 In 1979 and 1990 reports were produced which favoured the Kelvin Valley Route (TRA 73 and TRA 76), but no Ministerial announcements were made, no route was reserved, and no draft Orders were published.

1.7 In February 1997, following the Babtie Group’s Stage 2 Report (TRA 87) and the M80/M73 Stepps to Haggs Consultation Forum, Ministers decided in principle to progress the ‘on-line’ route.

1.8 In July 1998 the Government published ‘Travel Choices for Scotland: The Scottish Integrated Transport White Paper’ (TRA 9). This acknowledged that the ‘predict and provide’ approach to roads building was unaffordable, unsustainable and, ultimately, self-defeating (TRA 9, Summary).
1.9 In November 1999 the Scottish Executive published ‘Travel Choices for Scotland: Strategic Roads Review’ (TRA 10). The ‘Strategic Roads Review – Scheme Decisions’ (TRA 11) stated that, for environmental reasons, the Executive would give no further consideration to the off-line Kelvin Valley option; and that the M80 Stepps – Haggs (on-line route) would be analysed further in a multi-modal corridor study.

1.10 That further analysis consisted of the ‘Central Scotland Transport Corridor Studies’ (CSTCS), decisions on which were announced in January 2003 (TRA 2 and 14). Ministers decided that, in view of their policy aspirations for traffic stabilisation in the medium term, the consultants’ recommended full upgrade should be replaced by a limited upgrade.

1.11 The announced upgrade comprised:
• a new 2-lane bypass of Moodiesburn from the end of the M80 Stepps bypass at Hornshill to Mollinsburn;
• widening the section of road between Mollinsburn and Auchenkilns to 3 lanes; and
• upgrading the existing 2-lane road between Auchenkilns and Haggs.

1.12 While the CSTCS work was ongoing, the Executive published ‘Scotland’s Transport: Delivering Improvements’ (TRA 12) in 2002. It stated that road traffic was predicted to grow by 27% over the next 2 decades, and that the Executive would strive to stabilise this at 2001 levels by 2021, through investing in an integrated package of measures – modernising and improving public transport, promoting alternative modes of transport to the private car, and targeted motorway and trunk road improvements (Executive Summary, page viii).

1.13 In March 2002 the Executive committed funds for the provision of a grade-separated interchange at Auchenkilns (TRA 3).

1.14 In June 2004 the transport White Paper ‘Scotland’s Transport Future’ (TRA 13) was published. It states: “We are striving to stabilise road traffic volumes at 2001 levels by 2021. If traffic levels continue to rise then congestion, increased journey times and reduced reliability will continue to act as a constraint on the economy. Historically growth in the economy is accompanied by growth in traffic volumes. We need to break that link without hampering economic performance.” (paragraph 1.21)

1.15 At paragraph 4.21 the White Paper refers to a targeted programme of new construction where that is shown to be justified against the criteria of safety, economy, environment, accessibility and integration.

The proposals

1.16 It is intended that the proposed scheme would be procured by means of a ‘design and build’ process. The contractor would undertake both the detailed design and the construction of the scheme. The main elements of the specimen design, prepared by Jacobs Babtie, are set out in the remainder of this section.

1.17 The proposed scheme has been designed to rural motorway standards with a 120 kph design speed. Between Stepps and Mollinsburn (approximately 8km) it would be a dual 2-lane, greenfield, off-line road. Between Mollinsburn and Low Wood junction, just west of
Auchenkilns junction (2.7km), it would be a dual 3-lane on-line road. Between Low Wood and Haggs (7.3km) it would be a dual 2-lane on-line road, with additional climbing and weaving lanes either side of the Castlecary viaduct. At Auchenkilns the scheme would tie in with the now largely completed junction improvement works. Hard shoulders would be 3.3m wide, except in 6 locations where they would be narrower, but still sufficiently wide for emergency access.

1.18 Six existing junctions would be retained and upgraded. The existing grade-separated Hornshill junction would be upgraded to provide for all traffic movements between the M80 and the side road network. This would involve the construction of a second overbridge, located to the east of the existing structure, and the formation of a raised roundabout. The existing M80 carriageway between Hornshill junction and the Crow Wood roundabout would be retained as a de-trunked link.

1.19 At Mollinsburn, a new high capacity interchange has been designed to permit the free flow of traffic between the M73 and the eastern section of the M80, and to provide for all movements to and from Mollinsburn, Westfield and Condorrat, as well as connecting the de-trunked section of the existing A80 to the west. The existing substandard M73 link roads serving the eastern section of the M80 would be replaced by those conforming to current standards. The new northbound M73 link road connecting to the eastbound M80 carriageway would partly follow the line of the existing A80 carriageway before bridging over the new M80 and merging with it by means of a lane gain. The realigned southbound M73 link road would diverge from the westbound M80 carriageway by means of a lane drop and would again partly follow the line of the existing A80 carriageway.

1.20 Connection between the M73, the western section of the M80 and the local road network would be by means of a half diamond grade-separated junction arrangement with a new overbridge, west facing slip roads only, and connecting link roads. The 2 junctions connecting the slip roads to the side road network would be signalised to allow greater flexibility in the management of the predicted traffic flows in future years. The side road network in the area would be significantly altered to allow all movements between the motorway network and local destinations to be achieved. This includes the realignment of Mollins Road and other sections of the local road network. The existing Mollins overbridge would be replaced by a new crossing of the realigned M73 link roads located to the west, thereby providing an improved horizontal alignment of the new side road. The junction connecting Garferry Road and the realigned Mollins Road would be signalised to allow more effective management of the traffic in this area. Redundant sections of the existing local road network in this area would be removed and landscaped.

1.21 The existing junction on the westbound carriageway of the A80 at Dalshannon would be closed due to safety concerns associated with the substandard nature of the junction.

1.22 On the approach to the Low Wood junction, in the eastbound direction, one lane would be dropped at the exit slip road on to the A8011. The layout would be improved with the inclusion of an auxiliary lane diverge. In the westbound direction, one lane would be gained at the entry slip road. The substandard short link roads that connect from North Road and Condorrat Ring Road on to these slip roads would be closed for safety reasons.

1.23 At Old Inns junction both the diverging and merging tapers would be improved to current standards in the eastbound direction. The slip roads that currently serve the Old Inns
petrol station and the Burger King / Little Chef restaurant located to the east of the junction are substandard and would be closed for safety and operational reasons. The closure of the site access would remove the conflict associated with the substandard weaving length that results from the close proximity of the petrol station and Old Inns junction and would aid vehicles merging from Old Inns. Alternative access to the site for eastbound traffic would be provided by using the Old Inns junction and the local road network. In the westbound direction, new slip roads would be introduced with traffic signals located on the A8011 to manage access to and from the side road network. An extended auxiliary lane, approximately 1600m in length, would be incorporated on the westbound carriageway between Castlecary viaduct and Old Inns junction. It would function as a climbing lane.

1.24 At Castlecary junction, the westbound diverge slip road would be improved through the introduction of a weaving lane from Haggs Junction. The substandard westbound merge slip road would be closed. In the eastbound direction a climbing lane would be incorporated from the existing Castlecary merge slip road. It would act as a lane gain up to Haggs junction, where it would tie into the existing 3-lane carriageway of the M80.

1.25 To reduce traffic volumes in Castlecary village, the right turn movement from the B816 to the M80 eastbound carriageway and the right turn movement from the M80 westbound diverge on to the B816 would be prevented under the proposed scheme. Bus gates would be introduced at these junctions to permit scheduled bus services to be maintained (TRA 150). Other vehicles wishing to make these movements would instead use Old Inns junction.

1.26 Segregated hard shoulders would be provided through the Castlecary viaduct. The viaduct piers would be encased in concrete with additional lengths of safety barrier provided on the approaches to the structure (TRA 151).

1.27 The layout of the Haggs junction would generally remain unchanged. However the addition of a weaving lane would mean that the westbound merge would provide safety benefits. Additionally, the merge and diverge tapers would be improved to current standards.

1.28 The proposed scheme would incorporate 8 new overbridges, 2 new underbridges, one new underpass and one new footbridge. Sixteen existing structures, including 2 pedestrian footbridges, would be retained. Of the structures to be retained, 3 underbridges and 3 pedestrian underpasses would be widened to accommodate the wider carriageway cross section.

1.29 Four existing structures would be demolished. Two of these, at the existing Mollins junction, would become redundant under the proposed junction layout. The existing North Road overbridge would be demolished and reconstructed, because of the poor condition of the structure and the increased carriageway cross section of the M80. Limitations of space dictate that the overbridge would have to be reconstructed along its existing alignment. A temporary overbridge adjacent to the new structure would be provided during construction to allow vehicles and pedestrians to continue to use North Road. Glenview Avenue overbridge would be replaced due to the substandard vertical clearance, and to accommodate the additional carriageway cross section. It is anticipated that this would require the closure of Glenview Avenue for approximately 6 months.
1.30 Lighting would be broadly similar to the existing situation. Hornshill junction would be lit. The section of road between Hornshill and Mollinsburn would be unlit. Lighting would recommence at the Mollinsburn west facing slip roads and would continue to Auchenkilns. To the east of Auchenkilns the road would remain unlit. A short section of the B816 would be lit in the vicinity of the rearranged Castlecary junction, as would the access road to Seafar from the tie-in to Old Glasgow Road.

1.31 A number of new footpaths, footways and cycle tracks would be provided to accommodate pedestrians, equestrians and cyclists.

1.32 Accommodation works, including new accesses, fencing and gates, would be provided as part of the scheme to compensate for impacts on landowners.

1.33 The proposed scheme was subject to a formal environmental impact assessment. The environmental statement (TRA 92-95) has been supplemented by many other assessments dealing with such matters as road safety, health impacts and flooding.

**The draft Orders and Schemes**

1.34 The following draft Orders and Schemes were published in several batches, with periods for objection running from the end of 2003 to early 2005.

**Phase 1 – Mollinsburn to Auchenkilns**

- The M80/M73 Special Roads (Mollinsburn to Auchenkilns) Scheme 200 (TRA 15)
- The A80 Trunk Road (Mollinsburn to Auchenkilns) (Side Roads) Order 200 (TRA 17)
- The A80 Trunk Road (Mollinsburn to Auchenkilns) (Prohibition of Specified Turns) Order 200 (TRA 16)
- The M80 Special Road (Mollinsburn to Auchenkilns) Appropriation Order 200 (TRA 28)
- The M80/M73 Special Roads (Mollinsburn to Auchenkilns) Compulsory Purchase Order 200 (TRA 18)

**Phase 2 – Auchenkilns to Haggs**

- The M80 Special Road (Auchenkilns to Haggs) Scheme 200 (TRA 20) (TRA 20)
- The A80 Trunk Road (Auchenkilns to Haggs) (Side Roads) Order 200 (TRA 19)
- The M80 Special Road (Auchenkilns to Haggs) Appropriation Order 200 (TRA 21)
- The M80 Special Road (Auchenkilns to Haggs) Compulsory Purchase Order 200 (TRA 29)

**Phase 3 – Moodiesburn Bypass**

- The M80/M73 Special Roads (Moodiesburn Bypass) Scheme 200 (TRA 24)
- The M80/M73 Special Roads (Moodiesburn Bypass) (Side Roads) Order 200 (TRA 23)
• The M80/A80 Trunk Roads (Stepps to Moodiesburn) Detrunking Order 200 (TRA 25)
• The Stepps Bypass (M80) (City of Glasgow District Boundary to Crow Wood) Special Road (Variation) Scheme 200 (TRA 26)
• The Stepps Bypass (M80) (City of Glasgow District Boundary to Crow Wood) (Connecting Roads) Special Road (Revocation) Scheme 200 (TRA 27)
• The M80/M73 (Moodiesburn Bypass) Special Roads (Extinguishment of Public Rights of Way) Order 200 (TRA 22)
• The M80/M73 Special Roads (Moodiesburn Bypass) Compulsory Purchase Order 200 (TRA 30)

1.35 The trunk roads authority subsequently proposed to amend some of these Orders. These amendments are set out in TRA 215 (which supersedes TRA 206) and TRA 216.
CHAPTER 2

GENERAL CASE FOR TRUNK ROADS AUTHORITY
(INCLUDING RESPONSES TO NON-STATUTORY OBJECTIONS)

Introduction

2.1 The need for the scheme is not in dispute (see, for example, TRA 212). The A80 forms part of the strategic road network between Glasgow, Stirling and the North-East. It is one of the most heavily used roads in Scotland. It carries a substantial amount of commuter traffic, the large majority of it consisting of single occupancy vehicles. During peak hours there is heavy congestion, delays and a poor level of service. The existing carriageway alignment, cross section and junction layouts are below standard. Even in the absence of the scheme major maintenance work is now required. Other than in the context of the proposed upgrade, this work would be very difficult to achieve without causing major disruption. The poor operational conditions raise safety concerns. Any accident or maintenance works cause consequential problems because of the current limited carriageway capacity.

2.2 The published scheme would complete an important link in the Central Scotland motorway network; bypass currently adversely affected properties at the western section; improve access to Cumbernauld; create a hard shoulder refuge for accidents and breakdowns which currently cause major disruption; and provide mitigation to properties currently affected by traffic on the A80.

Development of alternative route alignments

2.3 The importance of the A80 Glasgow to Stirling trunk road to commerce and the travelling public and the need to maintain and enhance the route have been long recognised by the Scottish Executive (formerly, the Scottish Office). This is evidenced by the history of studies and consultations undertaken since the 1970s by Jacobs Babtie (operating formerly as Babtie Group, and before that, as Babtie, Shaw and Morton) on behalf of the Scottish Executive/Scottish Office to investigate the upgrading of the A80 to motorway standard.

2.4 The studies undertaken in the 1970s comprised feasibility studies which focused on identifying possible motorway routes between the M8 east of Glasgow and the M80 at Haggs. In 1979 a working party produced a report entitled the ‘M80 Feasibility Study’ (TRA 73). This report presented 9 alternative scheme options on the line of, or north of, the current A80, and recommended the construction of the M80 Stepps bypass to link the M8 to the A80 at the Crow Wood roundabout at Stepps.

2.5 During the mid-1980s, efforts centred on the promotion of the M80 Stepps bypass, which opened to traffic in 1992. While this was taking place, the various options to complete the link from Stepps to Haggs were further examined and reported in the ‘Report of Further Investigations’ of 1982 (TRA 74). The report concluded that 2 options merited further investigation, namely, the Red Route (a mainly on-line upgrade along the alignment of the existing A80) and the Green Route (an off-line alignment along a more northerly greenfield
route). The remaining options were discarded on both engineering and environmental grounds.

2.6 Through the 1980s the route was in a state of flux, with, in general, no clearly preferred route. It was not accepted that for a considerable period of time a northerly route through the Kelvin Valley was the fixed preference.

2.7 In 1990 a major feasibility study report was prepared to address the Red and Green Routes, the ‘M80 Motorway: Stepps to Haggs Section, Feasibility Study Report’ (TRA 76). The report reaffirmed the significance of the A80 as a principal link road in the highway network of central Scotland, and demonstrated that the road did not satisfy the travel requirements of the time, in terms of either the level of provision or the condition of the carriageway. The 1990 report concluded that both routes were feasible options, and recommended adoption of the Green Route as best meeting the objectives of the time using the assessment methodology then available. It stated that prior to a decision being undertaken on scheme promotion, further consultations should be carried out with local authorities, land owners and interested parties. However, the formal establishment of a preferred route line comes with the publication of draft orders, and there was no Ministerial announcement on the adoption of the Green Route as a preferred line.

2.8 The Red and Green Routes were re-titled the ‘A80 Route’ and the ‘Kelvin Valley Route’ (KVR), respectively, and were adopted as the official scheme options. Both routes were subsequently subject to a number of refinements, primarily associated with reducing environmental impact. The KVR alignment was refined along its entire length to reduce impact on a variety of ecological sites. Major changes to the Sauchenhall interchange and the crossing of the Forth and Clyde Canal were developed, although these were only partially successful in alleviating environmental concerns. The A80 Route was re-routed in the vicinity of the Castlecary viaduct, with the bifurcation of the mainline under the arches of the viaduct. This considerably reduced the level of impact and the scheme cost, bringing the cost into parity with that of the KVR.

2.9 During this time a further alternative route was developed and examined. This was the CARE 80 option advocated by the CARE 80 environmental pressure group (TRA 84). However, it did not fulfil the scheme objectives of the time and was subsequently eliminated from further investigation.

2.10 By the mid-1990s a number of factors resulted in a further comparative assessment of the 2 routes:

- the introduction of a new assessment methodology in 1995, including Volume 11 of the Design Manual for Roads and Bridges (DMRB). This put much more emphasis on environmental issues in arriving at route selection than the previous STEAM methodology used in the 1990 report;
- increasing concerns relating to the potential environmental impact of the KVR as more detailed investigation of sites, coupled with consultations, identified particular natural and cultural heritage concerns;
- increased expertise in on-line construction while minimising traffic disruption; and
- refinements to the routes which resulted in significant differences in environmental impact and changes to scheme cost and economic performance.
2.11 With respect to the third bullet point, it is now possible to purchase land and create the space needed to build a new road, and thus widen the carriageway, while keeping 2 lanes open in each direction. On-line widening no longer holds the fears it once did. Those fears had been a major factor in the early decisions on a northerly route. Experience along a number of routes, for example the A8 Baillieston to Newhouse improvements, has provided reassurance that the industry has developed ways of managing traffic disruption during such works.

2.12 A formal comparative assessment of the 2 routes was undertaken in 1996, including a full comparative assessment of cost, operational and economic performance, and environmental impact. The latter was undertaken in accordance with the guidance provided in the DMRB, and reported in the ‘M80 Stepps to Haggs Stage 2 Report’ of 1997 (TRA 87).

2.13 Both route options were of comparable cost and offered an equally good financial return, while meeting the scheme objectives for completion of the Central Scotland motorway network. Each option provided a dual 2-lane motorway between Hornshill junction and their respective connections with the M73. While the KVR continued to Haggs as a dual 3-lane motorway, the A80 Route incorporated a section of dual 4-lane motorway between Mollinsburn and Auchenkilns before continuing as dual 3-lane to Haggs.

2.14 From an engineering perspective, the A80 Route would have been more difficult to construct, but both options were considered feasible. In terms of environmental impact, the 2 route corridors were markedly different and, consequently, the nature of impacts was not directly comparable. This made the selection of a preferred route problematical. It was therefore decided to take the 2 route options to the public arena to widen the debate and gain additional input from the public, local non-statutory bodies, and the statutory consultees already involved in the assessment process.

2.15 The M80/M73 Stepps to Haggs Consultation Forum was held in the summer of 1996 and chaired by an independent facilitator. The process and analysis is outlined in Section 3 of the ES (TRA 92). The final stage of the consultation comprised a 2 day public forum that allowed groups taking part in the consultation to present their views and hear the opinions of others. Forty-two groups, covering a broad spectrum of interests, took part (TRA 85). The extent of this consultation was unprecedented on any road scheme in Scotland.

2.16 Analysis of the input received during the consultation process showed that the focus of public concern relating to the A80 Route was on safety, disruption due to construction, and quality of life. The concerns raised in relation to the KVR concentrated more on the natural environment, with both Scottish Natural Heritage and Historic Scotland advising against the adoption of the route. In addition, strong public feeling was registered on the impact on the environment, the impact on the greenfield landscape of the Kelvin Valley, and quality of life.

2.17 In the final analysis, it was the inability to successfully mitigate the potentially adverse impacts associated with the KVR, identified during the Stage 2 Scheme Assessment and the Consultation Forum, which led to the selection of the A80 Route as the preferred route. This decision in principle was announced by Ministers in February 1997. This process is more fully described in Section 7 of the Stage 2 Report (TRA 87). The Babtie Group was retained to progress the Stage 3 design and environmental assessment of this route.
2.18 It was accepted that the KVR would have ‘operational’ benefits over an on-line upgrade, and that it would be easier to build. The proposition by some objectors that the route choice decision was made on the basis of impacts on things rather than people was seen as an over simplification. Environmental safeguards are all about people. Furthermore, while more adjoining residents might be affected by the proposed on-line upgrade, many other people would be affected by the construction of a new motorway through the Kelvin Valley.

2.19 The Scottish Ministers’ announcement, in early 2003 (TRA 14), to support a more limited upgrade than that recommended by the consultants reflected their target to strive to stabilise traffic flows at 2001 levels by 2021, and their concern about continued growth of long distance commuters on the route. The consultants had recommended, in particular, an additional lane between Mollinsburn and Haggs. However it was intended that this would have been provided for the purpose of demand management measures, such as use by high occupancy vehicles.

2.20 Further decisions of relevance to the A80 were made at the time, including:
- improvements to the Cumbernauld to Glasgow rail service, including the proposed Allandale park-and-ride facility at Castlecary;
- improvements to the Motherwell and Stirling via Cumbernauld rail service;
- improvements to bus services within Cumbernauld and to Glasgow; and
- improved integration and facilities for public transport.
These are likely to contribute to the modal shift in the corridor from the private car to public transport.

2.21 A number of refinements were also made to the preferred route. The layout of the Hornshill junction was changed, to improve its operation. At Barbeth Moss, the route was moved south to reduce the encroachment on this raised bog of ecological and archaeological importance. At the Mollinsburn interchange, the alignment of Mollins Road was changed to greatly reduce the impact on the site of the Mollins Roman Fort. The alignment at Castlecary was altered to minimise land take and to reduce the intrusion into Castlecary Glen. It was decided to keep the Castlecary junction open, but in order to reduce traffic flows in Castlecary village, right turn movements at the end of the slip roads would be prohibited to all vehicles other than scheduled bus services. The final major change was to the alignment at Haggs.

2.22 The proposed road would bypass Muirhead and Moodiesburn, but not Cumbernauld. In earlier discussions about route choice, the need to bypass the built up areas of the western settlements was recognised and was common to all options. This was because of the urban nature of the existing road in that section. It is characterised by the close proximity of houses that front on to the main line with private accesses, and by the number of junctions, including roundabouts and traffic lights. An extension of the M80 Stepps bypass to motorway design standards eastwards in an attempt to utilise the existing A80 corridor between Stepps and Mollinsburn would result in serious impacts, including significant property demolition in the Muirhead and Moodiesburn area. In contrast, the remainder of the route would use a corridor which is less urban in nature and of adequate width for the M80 upgrade, and where, as demonstrated in the ES, the impacts could to a large extent be mitigated.

2.23 There are no specific policies or practices that prohibit road construction through built up areas. The scheme was designed and promoted in accordance with DMRB and was
assessed against a number of planning and related documents from national to local level, with which it is in general compliance. While there are examples of motorways bypassing towns, there are also examples of motorways passing through residential areas in both cities and towns.

**Current policy**

2.24 Ministers are determined to reduce traffic, and to increase public transport spending to up to 70% of the transport budget. That was achieved in the latest financial round. The ‘predict and provide’ policy is no longer in use. Scottish Ministers have a wide range of concerns, including carbon dioxide (CO$_2$) emissions. To focus simply on traffic capacity is misconceived.

2.25 While the scheme would provide considerable operational benefits, it is not intended to meet unconstrained levels of traffic growth beyond the year of opening. New land use planning guidance (SPP 17: Planning for Transport) (TRA 47), a commitment to investigate fiscal measures such as road user charging, and a raft of integrated transport packages could all reduce traffic growth in the A80 corridor. These measures are designed to contribute to modal shift in the corridor from private car to public transport. However, the impact of these measures cannot be quantified at present.

2.26 It was accepted that the target of stabilising road traffic volumes at 2001 levels by 2021 is very ambitious. The desire is to change travel behaviour, for example by the sharing of vehicles. Growth in car ownership does not necessarily result in an increase in vehicle trips. Further details as to how the ‘2001/2021’ policy is to be pursued are set out in the ‘Transport Indicators for Scotland’ report published in December 2002 (TRA 209).

2.27 Should traffic volumes continue to grow, integral demand management measures would be introduced as and when required to maintain the desired level of service on the route. Such measures would be targeted to provide priority for trips of high economic value such as public transport, heavy goods vehicles and high occupancy vehicles. The degree of control required from these measures and the timing of their introduction, should they be required, cannot at this time be predicted with certainty. Given that the traffic growth predicted by the CSTM3a traffic model (see below) is unrealistically high, integral demand management measures may not be required.

**The real choice – the published proposals or the ‘do-minimum’ scheme**

2.28 The present proposals are the only plans to upgrade the route. The TRA presented evidence on the KVR, but this was purely in response to objections and to allow objectors’ concerns to be fully and fairly addressed. This should not be construed as a change in policy on the part of Scottish Ministers to complete the M80 between Stepps and Haggs by means of the proposed scheme. The TRA’s view is that the real choice is between the published proposals and structural maintenance of the existing road. If the published scheme was rejected, it does not follow that the KVR would proceed. If Ministers had wanted to increase capacity they would have taken a wider on-line route: one should not see increased capacity as equating to a KVR. Ministers have no intention of adding to the capacity of what they are proposing. It would be very difficult to add further lanes to the proposed scheme once constructed.
2.29 In accordance with the DMRB, it was necessary to develop a ‘do-minimum’ scenario for comparison purposes, against which to assess the benefits of the proposed scheme. This is fully reported on in the ‘Do-Minimum Engineering Assessment’ (TRA 143). It should be noted that the ‘do-minimum’ option would not meet any of the scheme objectives as set out in the ES (TRA 143, paragraph 8.2).

2.30 The ‘do-minimum’ scheme would involve upgrading the existing A80 road construction to give 20 years’ design life, and upgrading the carriageway cross section to all-purpose dual carriageway providing two 7.3m wide carriageways, a minimum 4.5m centre reserve, including two 1m hardstrips, and two 3.5m verges inclusive of 1m hardstrips.

2.31 The provision of a new pavement/overlay would provide scope for minor improvements to the vertical alignment of the mainline A80, where appropriate. Minor improvements to existing junctions would be included, mainly taking the form of pavement surfacing, white lining and kerbing. On grounds of safety, due to the substandard visibility to and from the junction, the Dalshannon junction would be closed.

2.32 Only limited operational and safety benefits would be provided due to the minimal improvements to carriageway provision, alignment and junction layout. However during breakdowns and minor accidents, the additional width of 2m, as a result of the newly constructed hardstrips, would allow 2 lanes of traffic to be continued around the obstruction.

2.33 The ‘do-minimum’ scheme would also provide new barriers, signs and drainage. The structural works would generally consist of pier protection works, upgrading of parapets and the replacement of bridge waterproofing and movement joints. Whilst these would not provide any direct operational benefits to road users, no major maintenance works would be required for some 12 years. This would reduce the delays which could be expected to occur along the A80 if these works had to be undertaken in smaller work packages. The current scheme cost estimate is £36.9 million, excluding VAT.

2.34 The delays and congestion experienced at present would remain on completion of the ‘do-minimum’ scheme and, with the predicted increase in traffic growth, would result in the continued deterioration of conditions on the route in future years. This, coupled with failure to meet any of the scheme objectives, meant that the ‘do-minimum’ scheme was not considered as a viable alternative.

Traffic modelling

2.35 The proposed scheme was designed to accommodate predicted traffic growth up to the year of opening, 2010. If traffic volumes continued to grow beyond 2010, integral demand management measures would be introduced.

2.36 The proposed scheme was assessed using the TRIPS multi-modal Central Scotland Transport Model version 3a (CSTM3a). The model incorporates local authority planning data and aspirations. As these are not constrained by population levels, the model results in unrealistically high estimates of traffic growth. The Transport Model for Scotland (TMfS), which is based on more realistic inputs, has now been produced. It confirms that the growth projections used in the CSTM3a are likely to be too high. Also, no account was taken in the modelling of the impact of policy decisions to discourage car travel. Thus the model used for
the scheme design and assessment assumes unconstrained traffic growth. One consequence of this is that the assessments of the impacts of the scheme are robust.

2.37 The improvements brought about by the scheme would increase capacity and provide significant travel time savings, of up to 15 minutes during peak periods. The equivalent increase in average speed would be approximately 25 kph, from approximately 45 kph for the ‘do-minimum’ to 70 kph under the scheme. There would be very worthwhile benefits for the economy. Improvements to the standard of carriageway provision, alignment and junction layouts would also provide safety benefits to road users.

2.38 Delays from incidents on the A80 would be greatly reduced in comparison to the current situation. This would be achieved through the provision of an additional lane and hard shoulders in each direction between Mollinsburn and Low Wood junction, and hard shoulders or additional lanes along the remainder of the route. Hard shoulders can be used as temporary running lanes or harbour any vehicles in the event of an accident or breakdown. Few sections of the Scottish motorway network have an alternative route to dual carriageway standard: this does not appear to impair operational efficiency of the network.

2.39 In response to specific objections, the model indicated:
- Traffic flows on side roads would generally be lower than if the scheme was not built;
- Flows on the A803 to the east and west of Kilsyth would be likely to decrease by around 11%;
- The closure of the link road from North Road to the A8011/B8044 would, in the year of opening, reduce traffic levels on North Road; and
- Flows on Gartferry Road would be likely to increase by 1% under the proposed scheme.

2.40 Discussions are ongoing with local authorities about potential traffic calming measures to reduce vehicle speeds on side roads.

2.41 To reduce traffic volumes in Castlecary, the right turn movement from the B816 to the M80 eastbound carriageway and the right turn movement from the M80 westbound diverge on to the B816 would be prevented to all vehicles, with the exception of scheduled bus services. Vehicles wishing to make these movements would instead use Old Inns junction. While this would lead to a small increase in traffic using this junction, both the diverging and merging tapers at Old Inns would be improved in the eastbound direction and full grade-separated slip roads would replace the 2 existing compact 2-way slip roads in the westbound direction. In the westbound direction, traffic signals would be located on the A8011 to manage access to and from the side road network. The traffic modelling has shown that these proposals would be an improvement on the existing layout.

**Economic appraisal**

2.42 Jacobs Babtie has estimated the total scheme cost to be between £127 million and £146 million, excluding VAT, at first quarter 2004 prices. The most likely cost is estimated to be £137 million.

2.43 The scheme shows a significant benefit in terms of transport economic efficiency. Travel time savings were valued at almost £271 million, not counting vehicle operating cost savings (TRA 155, paragraph 12.1.13).
2.44 A full cost/benefit analysis was carried out in accordance with Treasury guidelines. The net present value (NPV) with high growth assumptions was calculated to be a very healthy £399 million, with a corresponding benefit to cost ratio (BCR) of 4.8. For low growth the NPV is £324 million and the BCR is 4.1. Including the residual value of the road (about £53 million after 30 years) improves the BCR to 5.3 or 4.6, respectively. Should traffic levels return to 2001 levels, the scheme would still produce a positive economic return. With zero growth, the NPV is £166.9 million, and the BCR is 2.6 (TRA 142, page 111).

2.45 The decision to upgrade the Auchenkilns junction was taken after the route choice had been made. While it is an integral part of the A80 route, even on its own the Auchenkilns project makes economic sense.

**Design and departures**

2.46 The design conforms to the decision flowing from the CSTCS (TRA 14), and it has been undertaken fully in accordance with the DMRB. The junctions have all been modelled using high growth traffic projections, and all would operate in a satisfactory manner.

2.47 All departures from standard have been approved by the overseeing organisation (TRA 156 and 157), and an independent Stage 1 Road Safety Audit has been undertaken (TRA 145). In accordance with the DMRB, the engineering aspects of the proposed scheme, such as alignment, structures and ground conditions, have been assessed and are reported in the Stage 3 Assessment Report, Part 2: Engineering, Traffic and Economics Assessment (TRA 142). Plans showing the specimen design are also presented in figures 5.2.1 to 5.2.15 of the ES.

2.48 The proposed lane provision is not a matter which required any departure authorisation. DMRB guidance on lane provision in respect of predicted traffic flows is not a requirement, but rather a starting point for an assessment. Mr Gillies stated that he had rarely come across a scheme that did not require departures. Overall, 81 departures would be required: 48 for the on-line section and 33 for the off-line section. Mr Gillies did not consider this to be an exceptional number. The predicted equivalent for a KVR is 63 departures.

2.49 The slippage of a slip road during the Auchenkilns improvement works was not caused by any lack of knowledge of existing ground conditions. The contractors and their designers are in discussion about who should bear responsibility for that event. The outcome will have no impact on the public purse.

2.50 At Auchenkilns there was about 13m of soft material. The ground conditions there are not representative of those elsewhere on the scheme route.

**Effects on vehicle travellers**

2.51 Based on information on traffic flows and journey speeds, current levels of driver stress experienced on the A80 and on some of the side roads were assessed to be high, both during peak hours and for the majority of the day. This situation would be likely to worsen with increased traffic levels. With the scheme in place, driver stress levels would remain relatively high, but would be lower than at present, due to the improved alignment, free flow conditions and better signing (TRA 92, page 411).
2.52 Views from the proposed off-line section of the scheme between Stepps and Mollinsburn would be more varied, open and rural in character than those from the existing A80. Between Mollinsburn and Haggs, measures to attenuate noise and new planting would restrict views considerably more than at present and give a more urban character to the majority of the route. Overall, the view from the road would be slightly less varied and interesting between Mollinsburn and Haggs and more varied and interesting between Stepps and Mollinsburn than existing views.

**Scheme procurement and construction programme**

2.53 The scheme would be procured by means of a ‘design and build’ process, under the terms of which the contractor would undertake both the detailed design and construction. The contractor would be able to amend Jacob Baatie’s specimen design, provided there was no material difference in the environmental impact compared to that reported in the ES.

2.54 It is intended to start construction by the summer of 2007. The construction period is estimated to be a maximum of 3 years. However disruption at any single point on the route would be likely to last for a considerably shorter period.

2.55 The extent of impact during construction would vary throughout the construction period, and would depend upon the contractor's methods of construction. A comprehensive mitigation strategy to reduce potential impacts would be established, with which the contractor would require to comply. That strategy would be based upon adherence to best practice, and would include a requirement to adhere to noise levels set by the appropriate local authorities and the monitoring of compliance throughout construction. Careful management would avoid significant impacts from dust generation.

**Traffic management during construction**

2.56 The successful contractor would be required to prepare detailed traffic management proposals, which would require the approval of the Scottish Executive and the appropriate local authority. A formal road safety audit would also have to be prepared. The contract documents would require the maintenance of 2 lanes of traffic in each direction on the A80 between 6.00 am and 8.00 pm on weekdays. Fast response breakdown vehicles would be available. Document TRA 152 provides more details. The proposed mitigation measures would minimise the risk of additional congestion, and should ensure no significant impact on travellers. It was therefore considered that there would be no significant diversion of traffic to the side road network during the construction period.

2.57 Where practicable, access points across the proposed scheme would remain open to vehicles, pedestrians, cyclists and equestrians throughout construction. Where this was not possible, diversion routes would be provided. During the work to replace the North Road overbridge at Condorrat, a bailey bridge would provide for crossing the main road at all times. The Glenview Avenue overbridge would be stopped for a period; however an alternative route has been agreed with Falkirk Council.

2.58 The experience of the work to the Auchenkilns junction indicates that 2 lanes have been kept open, with minimal extra delays and little side road diversion (TRA 140). It was accepted that an alteration of traffic management at the works shortly before the inquiry had resulted in increased delays, albeit no greater than those experienced before the works.
commenced. This related to a change which provided less gap time for eastbound traffic in the early morning. The matter was being monitored at site traffic management meetings, attended by, amongst others, the police. While all parties were content, nonetheless monitoring would continue. If necessary, changes in traffic management would be introduced to deal with the issue. Traffic counters on Westfield Road had indicated an increase of 10% in traffic because of construction work – something which was not regarded as significant. Traffic counters in Condorrat had not shown any significant diversion off the A80 since the Auchenkilns works began.

Objective appraisal

2.59 The objectives of the M80 Stepps to Haggs scheme set out for the original studies in the 1970s have been developed and updated over time to reflect changes in policy. The current objectives are focused towards supporting Government policy on integrated transport, and are based on Government guidance as set out in the Scottish Transport Appraisal Guidance (STAG). It is stated in the STAG manual that the guidance should not be used for schemes that have reached an advanced state of planning prior to July 2001. However the manual has been used as a best practice guide to demonstrate that the principles of planning and appraisal described in the 1998 White Paper ‘Travel Choices for Scotland’ (TRA 9) have been followed. STAG provides a framework within which scheme-specific objectives are established, based on the 5 criteria of environment, safety, economy, integration and accessibility.

2.60 Scheme-specific objectives have been developed for the current proposal to address the transportation problems that are relevant to the locality. These are listed below, with confirmation of how they have been achieved (from TRA 155).

- (Environment: to reduce the impact on the built and natural environment, and lessen the adverse impacts of traffic on people, through improved design and effective management of the network.) On balance, it is considered that the on-line nature of the majority of the scheme would reduce the impact on the built and natural environment, and the mitigation proposed would reduce the impact on the local community. The benefits of having an on-line route would outweigh the local and mostly short term adverse impacts of the scheme during construction.

- (Safety: to improve safety in the A80 corridor and reduce the risk of accidents, with particular emphasis on reducing conflicts between vehicles, and conflicts between vehicles and other road users.) The proposed scheme would effectively minimise the opportunity for conflict between vehicles, and between vehicles and pedestrians, by bypassing the most urban section of the route between Crow Wood and Mollinsburn, and improving the road and junction layout on the remainder.

- (Economy: to support sustainable economic activity and get good value for money, by reducing delays and improving travel time reliability through the provision of good, quick and reliable strategic road links.) The proposed scheme would allow more efficient use of the network thus reducing delay and, by implication, improving journey time reliability. In this way the scheme would support sustainable economic activity in the area. However, where the existing A80 is proposed to be bypassed there would be a disbenefit for 4 businesses reliant on passing trade. On the on-line section, a repair garage would be demolished and 2 other businesses are affected. It is considered that the wider economic benefits of the scheme would outweigh these
impacts. The transport economic efficiency analysis demonstrates that the scheme offers very good value for money.

- (Integration: to complete the Central Scotland motorway network by improving the operational characteristics of the road corridor in line with the Scottish Executive’s integrated transport policy and Scottish Ministers’ response to the Central Scotland Transport Corridor Studies (CSTCS).) The proposed scheme would achieve this objective by providing operational and capacity enhancements to the strategic road network while complying with Scottish Ministers’ decisions in relation to the CSTCS.

- (Accessibility: to provide adequate access to facilities, in particular to jobs, and adequate accessibility to freight deliveries, consistent with the strategic role of the scheme corridor (linking North and North-East Scotland with the M6 main route to the European markets).) The proposed scheme would improve access to and from the strategic road network for the local area while upgrading junction layouts to improve operation and safety along this key trunk route.

Stage 2 review

2.61 Having regard to the fact that some objectors commented that circumstances had changed since the route was chosen in 1997, a review of the 1997 Stage 2 Report was prepared – the M80 Stepps to Haggs Stage 2 Review 2005 (TRA 144). This gives a comparative overview of the 2 routes in the light of more recent developments, such as: changes in assessment methodology; the number of lanes provided; the design of the routes and scheme costs; site conditions; legislative requirements; and policy. The report concluded that if the route choice decision was being made now, it would be more clear cut in favour of the A80 route.

2.62 A significant change in the intervening period has been the adoption of a more detailed approach to the assessment of air quality and water quality. Thus the comparative impact of the KVR is now greater. The reduction in the number of lanes of the A80 route means that construction impacts would be reduced for the on-line section, particularly between Auchenkilns and Haggs. However, the reduction in impacts in this regard would be marginal for the KVR, in that a new motorway line would be introduced into a greenfield area. The refinements to the preferred route (see paragraph 2.21 above) would result in a considerable reduction in environmental impact at Mollins Fort and Castlecary Glen, and a slight reduction at Barbeth Moss. Also, in more recent times, the increased usage of the canal and the new basin at Auchinstarry mean that the impact of the KVR on the amenity of the canal has increased in importance. British Waterways has confirmed that it would be against the KVR.

2.63 With regard to the potential impact on the Antonine Wall, a tunnelled solution has been considered. Nonetheless, there would still be a very significant impact on the setting of the wall and a potentially very significant impact on buried remains. Building a tunnel would also increase the cost of the KVR by an estimated £25 million. Indeed the capital costs of the routes are no longer comparable, with the A80 route offering better value for money: £127-146 million for the preferred route, and £239-271 million for the KVR. The explanation for these diverging cost estimates are set out in the Stage 2 Review (TRA 144, section 3.2). Factors include, as well as the Antonine Wall tunnel: the addition of £15 million to the cost of the KVR for specialist geotechnical measures; the reduction of £25 million from the cost of the proposed scheme because the Auchenkilns junction improvement has proceeded as a
separate contract; and the reduction of £20 million from the cost of the proposed scheme because the reduction in the number of lanes would allow some existing structures to remain.

2.64 Another change is that legislative requirements have become more stringent, with a greater emphasis on EU directives, including the Habitats and Water Quality Directives, and the Water Environment and Water Services (Scotland) Act 2003. SEPA has expressed a preference for the A80 route.

2.65 Mr Cairnduff expressed the view that the most important policy development has been the move to strive to stabilise road traffic volumes at 2001 levels by 2021. In this regard, the KVR would introduce another road corridor into the study area and would therefore be more likely to encourage greater traffic growth, thus failing to meet this key policy.

Traffic and related effects of KVR

2.66 If additional capacity was provided in the A80/Kelvin Valley corridor by the construction of a KVR motorway, overall capacity would be doubled, and thus more people would travel by car. If the KVR was built, high residual flows would remain on the A80. The A80 would be de-trunked and handed over to NLC, but it would not become a quiet backwater road. Between Mollinsburn and Low Wood the estimated traffic flow in 2010 would be between 40,000 and 60,000 vehicles per day. The lower figure represents a situation where all traffic that could use the KVR would do so; however, in reality this situation would be unlikely. Similarly, the flow between Auchenkilns and Old Inns is estimated to be in the range 25,000 to 45,000 vehicles per day.

2.67 The A80 would require to remain in operation as a regional route. Any closure or downgrading of the A80 would have a significant impact elsewhere on the road network in and around Cumbernauld. If the A80 was closed, then other local roads would be adversely affected. For example, about 15,000 vehicles per day from the A73 would have to go on to local roads. Money would need to be spent upgrading roads in Cumbernauld.

2.68 Mr Duff indicated that if one assumes about 23,000 households in Cumbernauld and a predicted peak hourly trip generation of about one trip per household, then homes alone will produce about 23,000 trips an hour. In addition businesses in Cumbernauld will generate both employee based trips and other trips relating to their business. There will also be retail and leisure based trips. It is then easy to imagine peak hourly flows of 50,000 vehicles within the Cumbernauld area. In these circumstances Mr Duff considered the figures predicted for daily trips on the A80 to be a reasonable number, within the context of hundreds of thousands of trips every day in Cumbernauld.

2.69 In the absence of the upgrade of the A80, the impacts on the A80 could not be mitigated. Thus, for example, as a generality in relation to noise, the assessment indicates that the position on the A80 would be improved if the on-line upgrade proceeded. This improvement would not occur with either a ‘do-minimum’ or a KVR solution.

2.70 Maintenance work to the existing road would still be required even if the KVR went ahead. The level would not be as significant, but work would still be required to make the road acceptable regarding current condition and future years of operation. Noise fences would not be part of that work. Noise attenuation measures are only deployed if changes to
the highway cause a deterioration in the noise environment. There is no regulatory requirement to do so, and to set a precedent in this regard would have implications for elsewhere on the road network. NLC would be unlikely to adopt a different view.

Environmental impact assessment

2.71 The EIA process was undertaken in accordance with the Regulations, and in accordance with established best practice and guidelines. It complied with PAN 58, Circular 15/1999 and Volume 11 of DMRB, and was independently audited. As part of the process, a comprehensive consultation exercise was carried out with a range of government agencies, non-government organisations and landowners. Each was contacted to inform them of the proposals, and to request comments and relevant information concerning the scheme. This exercise assisted in the development of the specimen design, identification of possible environmental impacts, and the selection of appropriate study methods and mitigation measures. The ES presents the proposals in a manner which is intended to be clear, objective and comprehensive. It ensures that all parties have sufficient information to assess the impacts arising from the development as proposed.

2.72 The project design was undertaken in parallel with the EIA process. An iterative approach was taken, whereby the findings of the assessment were discussed with the road designers, and wherever possible the developing design was amended to prevent or reduce environmental impacts. The work previously associated with the original Phase 1 study was incorporated into the ES published with the draft statutory Orders in November 2004. Other work undertaken for the Auchenkilns junction improvement scheme was used, where appropriate, including the Stage 3 Environmental Assessment Report (TRA 91).

2.73 Section 22 of the ES summarises proposed mitigation measures in a Schedule of Environmental Commitments. Those measures would be included as part of the M80 contract documents, and their implementation would become a contractual requirement.

Planning policy

2.74 The National Planning Framework for Scotland confirms that the Scottish Executive is committed to completing the Central Scotland motorway network, including the upgrading of the M80 (TRA 50, paragraph 116). However it does not explicitly endorse the on-line route.

2.75 Although Section 25 of the 1997 Act does not apply, it is nonetheless appropriate to review the planning policy background of the proposed scheme. The proposed upgrade crosses 3 council areas: East Dunbartonshire, North Lanarkshire and Falkirk. Within these areas, 15 development plans (approved, adopted and emerging) are applicable. A suite of drawings has been prepared which identifies the relevant plans (see TRA 208).

2.76 The Kilsyth Local Plan (1999) supports the KVR (TRA 207, policy TR1, page 13). This accords with the then Strathclyde Structure Plan 1995. However the former Strathclyde Regional Council’s support for the KVR in that structure plan was both reluctant and conditional on satisfactory mitigation of environmental impact (TRA 72, page 234). The Kilsyth Local Plan’s indicated preference for the KVR is now at odds with adjoining local plans, and does not accord with NLC’s most recent statements on the issue (TRA 158 and
159). There is no conflict between the on-line route and the current Glasgow and the Clyde Valley Joint Structure Plan (TRA 57).

2.77 It was concluded that the proposed scheme is consistent with the keys aims, objectives and strategies of the relevant national, regional and local planning framework, when considered as a whole. From a planning policy perspective, there is an overriding and robust theme of support for the scheme.

Geology and groundwater

2.78 Ground investigations in 1989 and 2003/4 and more recent desk investigations have provided information on potential contaminated ground on the route. The majority of contaminated ground encountered was inert fill associated with construction of the existing roads. Additionally, colliery spoil was identified at Auchengeich Bing, and there are deposits of burnt colliery spoil (red blaes) at Castle Glen. The colliery spoil in the Auchengeich Bing was found to contain sufficiently low levels of contaminants which may render it suitable for re-use as a general construction fill material.

2.79 So far as the potential risk of subsidence at surface is concerned, studies have been augmented by deep ground investigations in key areas. Although mine workings are present beneath many parts of the route, the depth and nature of most of the workings negate the risk of surface subsidence. Only 3 general areas have been identified as being potentially at risk – south of Cumbernauld village, Castlecary and Haggs junction.

2.80 The route crosses 2 large peat deposits that are identified as being of conservation value. The scheme runs just within the southern boundary of the Barbeth Moss for 400m, but is outside the area defined as a site of importance for nature conservation (SINC). The South Broomknowes Peat Basin is crossed by the route. Although it is not designated for ecological protection, it is recorded as an archaeological site, and changes to the peat hydrology could affect its value in this respect.

2.81 The only recorded site of geological interest along the route is the Mollinsburn Road Cutting SSSI. According to SNH, it is a fine example of a linear dyke swarm feature (TRA 153). The specimen design for the road alignment at this point has been developed in lengthy consultation with SNH. There would be no significant impact on the rock exposures. The contractor would consult with SNH in developing the detailed design. A geological clerk of works would be present during earthworks to ensure compliance with the design and protection of the salient geological features.

2.82 The contractor would be required to prepare method statements for treating and/or removing contaminated ground. Where required, shallow underground mine workings would be grouted or dealt with by other well established engineering methods. This would remove the current potential for subsidence in these areas of the route. So far as both major peat deposits are concerned, the impact significance was determined as moderate in the ES, given the sensitivity of the peat, balanced with the localised nature of the impact. The primary mitigation has been to realign the road as far south as possible to avoid the SINC at Barbeth Moss. It is also proposed to mitigate against the impact of removing the peat below the road line by the use of clean permeable materials to fill the excavations. Culverts would be introduced where significant flow routes were identified within the peat. Lateral de-watering of the peat would be prevented by the introduction of ground water cut-offs at the limit of the
peat, and at regular intervals within the peat section. Residual impacts on the peat hydrology are predicted to be negligible.

2.83 Significant cuttings are limited to 5 locations on the off-line section of the scheme between Stepps and Mollinsburn. The water table is typically around or below the level of the proposed road at these locations and, as the local groundwater is of low sensitivity, with no sensitive habitats, springs or abstractions, the impact is predicted to be negligible.

2.84 Mr Clough's overall conclusion in relation to the development of the proposed route is that any impacts related to geology and groundwater would be negligible.

2.85 The Stage 2 Review (TRA 144) re-visited the comparison of the A80 Route and the KVR in light of objections made to the choice of published route. The KVR would pass through 5 significant peat deposits, including the Gartshore Moss identified as being of regional importance, a local wildlife site, and a SINC. The peat deposits would correspond to areas of cutting, and therefore local de-watering of the peat down to the level of the carriageway would be unavoidable. The KVR includes numerous sections of significant road cuttings spread throughout the route, some of which would extend below the water table with associated impacts on water resources. The waste, gases and leachates associated with landfills would represent greater contamination related constraints for the KVR than for the published route. The KVR crosses more extensive areas of mine workings, and the associated required works would be much more extensive, and costly, than for the published route. Reduction of the potential impacts for the KVR by mitigation would be possible; however, since the published route is predominantly on the line of the existing A80, the residual impacts and mitigation costs associated with the KVR are much greater. As in 1997, the view is that in terms of geology and groundwater, the published route is clearly preferable.

Flooding, drainage, climate change and water quality issues

2.86 The most relevant pieces of recent guidance and legislation in relation to flooding and drainage issues are SPP 7: Planning and Flooding (TRA 41), PAN 61: Planning and Sustainable Urban Drainage Systems (TRA 55) and the Water Environment and Water Services (Scotland) Act 2003. That Act sets out the requirements of the European Water Framework Directive in relation to Scotland. So far as SPP 7 is concerned, the entire KVR would be classed as ‘new development’, whereas much of the scheme proposals would be categorised as ‘brownfield development’. Paragraph 17 of SPP 7 requires that development on the floodplain should be designed to remain operational in times of flood, and not impede water flow, and the effect on flood water storage capacity should be kept to a minimum. Where required, compensatory storage should be provided. Drainage measures should have a neutral or better effect on the risk of flooding, and surface water run-off should be fully or partially drained by a sustainable urban drainage system (SUDS), unless this is impractical.

2.87 The 2003 Act requires that there be no deterioration in the ecological status of adjacent watercourses, and that measures are implemented to enable ‘good’ ecological status to be achieved, unless the water body is designated as heavily modified, in which case other less stringent criteria apply. At this stage the overriding requirement is to ensure no deterioration in the ecological status of relevant watercourses. Water quality has been taken as the key indicator of that status.
2.88 A hydrological and hydraulic assessment was undertaken for all the watercourses crossed by the proposed scheme. Additionally, detailed modelling was undertaken for the Luggie Water, which is the largest of these watercourses. This modelling demonstrates that the proposed road levels are sufficiently above predicted flood levels for a 1 in 200 year flood event for the road to remain operational during such a flood. Similarly, KVR road levels over the main watercourses would be significantly above minimum requirements.

2.89 Any afflux associated with the bridges and culverts on the published route would be insignificant in terms of the effect on upstream flood levels, and unlikely to be of consequence downstream. Based on a very preliminary assessment, the afflux associated with the KVR crossing of the Kelvin Valley could be significant. It might be necessary to elevate the entire valley crossing on intermediate supports, or construct appropriately sized relief culverts within the approach embankments, adding to the cost of the KVR.

2.90 So far as displacement of floodplain storage on the published route is concerned, there is one location at Auchengeich Road where the embankment would result in some floodplain storage displacement. However, compensatory storage would be provided. The very broad assessment carried out in relation to the KVR indicates that it could result in a perceptible increase in flood levels for the Luggie Water and the River Kelvin with regard to floodplain storage displacement.

2.91 The on-line route would not have any significant effect on hydraulic conveyance, and might be of benefit in this respect. The overall impact of the KVR on hydraulic conveyance could be significant, unless alternatives to road embankments (such as an elevated roadway on columns) were adopted.

2.92 Mr Falconer was cross examined as to whether the Kelvin River crossing point could be described as floodplain. He explained that his evidence was based on the Centre for Ecology and Hydrology’s 1 in 100 year flood event drawings (TRA 182). These show inundation at this general location. The flood level can reach 45 metres AOD. The SEPA second generation plans will relate to a more serious 1 in 200 year event, but these have not yet been officially released.

2.93 Drainage issues could be satisfactorily addressed in the proposed scheme by providing a system conforming to SUDS guidance. It would also conform to the guidelines and requirements in the DMRB. Retention ponds would be constructed at various locations (TRA 179) to reduce the discharges to present levels. These would be fenced for safety reasons, and planting would probably be provided to soften their visual impact and, possibly, to deter access. It should be feasible to develop detailed proposals which satisfactorily addressed SUDS requirements for surface water drainage and any flood related issues associated with the KVR. However, if the KVR proceeded, the A80 would remain with no attenuation, and no treatment of surface water drainage by way of retention ponds.

2.94 Water quality would be monitored prior to and during construction. Potential impacts would be minimised by the early construction of retention ponds, and by adherence to best practice and SEPA requirements.

2.95 The proposed route would result in an overall improvement to water quality in adjacent watercourses. For the off-line section, there might be some localised increases in pollutants discharging into some watercourses flowing into the Bothlin Burn, where there is
currently no road discharge. However, these watercourses are relatively minor and are considered to be of poor quality. A KVR would pass 2 highly sensitive watercourses (Doups Burn and Auchincloch Burn) which are reported fish spawning habitats. Furthermore, an overall increase of pollution into KVR watercourses would be anticipated, with pollutants being discharged into previously unaffected watercourses, notwithstanding SUDS mitigation measures. The assessment undertaken indicates that there would be a number of watercourses failing the environmental quality standard for dissolved copper, including the Doups Burn and Auchincloch Burn. Avoiding this deterioration, and thus contravention of the requirements of the European Water Framework Directive, as enacted by the 2003 Act, could present a considerable challenge.

2.96 The proposed scheme has made appropriate provision for climate change. Measures such as the raising of embankment levels could also be introduced to the KVR to address climate change. However, as longer stretches of the KVR cross the floodplains of various watercourses, including the River Kelvin and the Luggie Water, more extensive and costly measures might be required for that route.

2.97 The proposals comply with current legislation and guidance in respect of flooding, drainage and water quality and resource issues. They are a more sustainable option than constructing a route through the Kelvin Valley, because of the potential impact on water quality associated with the KVR. SEPA is of a similar view (TRA 180).

**Ecology**

2.98 There are no European or nationally designated sites of ecological importance within the study area for the proposed route. (The Mollinsburn Road Cutting SSSI is notified for its geological interest and is of little ecological value.) Three SINCs (including 4 Scottish Wildlife Trust sites) close to the study area would be affected by the proposed scheme.

2.99 Adverse impacts on ecology would be mitigated by the use of protective fencing and careful programming to avoid impacts on protected species. The details of these measures would be agreed with SNH. The proposed mitigation measures are set out in the ES (TRA 92, pages 179-186). An ecological clerk of works would be appointed.

2.100 Across the entire scheme following the implementation and establishment of the mitigation measures, cumulative impacts on habitats, botanical interest and bats were assessed as being minor adverse in the short term and of neutral significance in the long term following the establishment of planting. This is as a result of much of the proposed scheme being on-line, and the generally poor quality of the potentially affected habitats.

2.101 Cumulative impacts on otters throughout the proposed scheme corridor were assessed as being moderate adverse in the short term. As otters are a European protected species the proposed scheme would require an otter development licence from the Scottish Executive. It is likely that this would relate to the timing of the works; a requirement to ensure continued access during construction for otters through the watercourses at night; and securing of all potential hazards to otters during construction outwith site working hours. Disturbance and risk of otter mortality would be minimised through the conditions of the otter development licence. As landscape planting established and otters became familiar with new road layouts, the impact would be reduced to minor.
2.102 Across the entire scheme, cumulative impacts on badgers, birds and amphibians (including the protected Great Crested Newt) were assessed as being neutral due to the poor quality habitat, low number recorded and restricted nature of the impacts. Water voles were not recorded within the whole study corridor, and as such no impact was predicted.

2.103 Cumulative impacts on freshwater ecosystems in the vicinity of the entire scheme were assessed as being of minor negative significance in the short term, but of neutral/minor positive significance in the longer term due to the enhanced water treatment system included in the proposals.

2.104 The proposals were discussed with the Scottish Wildlife Trust. It had not raised any concerns in relation to Seafar Forest, in which it has an ownership and management interest. The proposals would result in a slight loss of area, but an enhancement of habitat quality. The overall impact on the forest would be neutral.

2.105 Across the entire scheme, impacts on ecology and nature conservation were considered to be minor adverse in the short term, but neutral following the establishment and maturing of habitat creation schemes.

2.106 So far as the KVR is concerned the Stage 2 Review 2005 confirmed that the findings of the 1997 assessment remain correct (TRA 144, pages 22 and 23). There would be major ecological disbenefits involving the direct loss or fragmentation of areas of semi-natural vegetation and species of ecological importance. Not only would the KVR damage more sites, it would run through sites of higher quality in terms of the habitats available to species of interest. The damage to those sites would therefore be of greater significance. In terms of fragmentation and habitat severance, there is a material difference between widening an existing route and building a new road.

**Land use**

2.107 According to the ES, the total land-taken necessary for the construction of the scheme, including the proposed mitigation measures and areas made available for the contractor, would be approximately 241 ha, including 86 ha of agricultural land and 44 ha of woodland (TRA 92, page 72, table 8.7). Following the publication of the ES a number of changes were made to the draft CPOs, and the land take was adjusted. It is not intended to make any further amendments to the published draft CPOs over and above those discussed in TRA 215.

2.108 A detailed assessment of the impacts of the scheme on agricultural land use, agricultural businesses and land use capability was carried out by the Scottish Agricultural College. The assessment did not take into account the impact on the land already in the ownership of the Scottish Executive which would be used for the scheme.

2.109 Interviews with affected owners and site visits allowed the impacts of the scheme to be assessed. Particular attention was paid to the impacts of land lost, severance, drainage, access and labour requirements. A structured approach was adopted to the measurement of significance of impact. It was concluded that the scheme would result in the loss of about 67 ha of agricultural land, of which less than 2 ha is prime (class 3.1) land. Approximately 3 ha of agricultural land could be reinstated to agricultural use. The mitigation works proposed for the affected farm units would lessen the magnitude of the impacts associated with the proposed scheme. The scheme was assessed as having an overall rating for
significance of impact of slight/moderate. The significance of residual impact on individual businesses would vary from negligible/slight to moderate/substantial.

2.110 So far as the KVR is concerned, a review of the 1997 Stage 2 Report was undertaken, and details incorporated into the Stage 2 Review 2005. It was estimated that 38 agricultural units would be affected by the KVR, with severance predicted on 17 farm units and an estimated loss of about 220 ha of farmed land. This compares with a net loss of about 64 ha of farmed land for the proposed scheme, and a total of 16 affected agricultural land interests.

2.111 The land in the Kelvin Valley is not necessarily the best agricultural land, but it is by no means poor, and can grow a wide range of crops. It was accepted that every farmer will consider diversification to increase income. It was not accepted that horses have a necessarily deleterious effect on the quality of the land. There are unlikely to be more than a few ‘set aside’ parcels in the valley. If agricultural land is not being used at present, nonetheless the land capability for agricultural purposes remains. If a farmer loses land and wishes to retain the full subsidy, he must obtain land elsewhere. Farmers tend to resist land-take, and are not content to look to compensation as an appropriate substitute.

2.112 Four residential properties and a commercial garage would be demolished as a result of the proposals. One of the residential properties is derelict and another is already within the ownership of the Scottish Executive and leased to tenants. Areas of recreational open space would be lost at Moodiesburn, Mollinsburn, Burnbrae Woodland and Burnbrae Farm.

Pedestrians, cyclists and equestrians, and community effects

2.113 There are a number of paths and rights of way between Stepps and Mollinsburn linking the rural area to the north of Moodiesburn with the community facilities in Chryston, Muirhead and Moodiesburn. The paths are well used by pedestrians, cyclists and equestrians, particularly at weekends. Between Mollinsburn and Haggs, there are several existing overbridges, footbridges and underpasses across the A80. These routes link settlement areas containing community facilities and schools, and are also well used. The towpath along the Forth and Clyde Canal beneath the A80 is well used for recreational purposes.

2.114 As part of the background to the EIA, baseline data was obtained from a variety of sources. This included a review of pedestrian and other routes and their importance. In addition, a formal ‘cycle audit’ (TRA 147) was undertaken in accordance with recognised guideline methodologies prepared by the Scottish Executive and the Institute of Highways and Transportation. The recommendations from the audit were incorporated into the recommended scheme mitigation proposals.

2.115 Between Stepps and Haggs, many of the paths would be severed by the proposed scheme, but these would be diverted to cross the road at new overbridges or underpasses. The resultant overall impact on journey lengths and times would be minimal. Only 2 footpaths would be diverted to a degree that would adversely affect pedestrians classified as vulnerable (children and the elderly). Other user groups would not be affected. Pedestrians and others travelling between Mollinsburn, Westfield, Gartferry Road and Moodiesburn would benefit from improved safety by the provision of new footpaths. The overall impact on pedestrians and others would be significant to moderate adverse between Stepps and Mollinsburn, and slight adverse to negligible between Mollinsburn and Haggs.
2.116 The proposed scheme would cause no new community severance, as all existing crossing points on the A80 would be retained. Three underpasses would be extended by between 2 and 4m (TRA 142), but that is not material. The existing severance of communities on either side of the existing A80 between Stepps and Mollinsburn (at Muirhead, Chryston and Moodiesburn) would be substantially reduced as a result of significantly lower traffic flows on the A80.

**Visual and landscape impacts**

2.117 The landscape and visual assessments were undertaken in accordance with the DMRB, Volume 11 and the Landscape and Visual Assessment Supplementary Guidance (TRA 106), and with reference to the Guidelines for Landscape and Visual Impact Assessment (TRA 165). Scheme impacts were assessed for the winter, year of scheme opening (2010), when earthworks, fences and noise barriers would be in place, and for the summer, 15 years after scheme opening (2025), when mitigation planting would have become established.

2.118 Proposals for mitigation of adverse landscape impacts fall within the categories of prevention and reduction/offsetting. The latter would involve native mixed and deciduous woodland planting; other planting and seeding proposals; earthworks mitigation; and retention pond design.

2.119 Between Stepps and Mollinsburn, the most significant adverse residual impact of the proposed scheme would be the introduction of the new road line within an essentially rural landscape. Overall there would be a moderate to substantial adverse impact in the winter, year of opening. By the summer, 15 years after opening, the landscape impact would be moderate adverse.

2.120 Between Mollinsburn and Auchenkilns, the most significant adverse impacts would result from the loss of established roadside planting and the introduction of noise bunds and barriers. Overall there would be a slight to moderate adverse impact during the winter, year of opening. By the summer, 15 years after opening, this would have reduced to slight adverse.

2.121 Between Auchenkilns and Haggs, the main adverse effects would be the loss of planting, the introduction of bunds and barriers, and the construction of new cuttings and embankments. Overall there would be a moderate to substantial adverse impact in the winter, year of opening. By the summer, 15 years after opening, this would have reduced to slight to moderate adverse.

2.122 The only significant and widespread adverse landscape impacts in the longer term would occur in the rolling rural landscape between Stepps and Mollinsburn, as a result of the introduction of the road and the dilution of rural character. Local long term impact would occur close to the viaduct in Castle Glen, and at Dunns Wood, where the loss of mature woodlands in the steep sided valley, and an opening of views, would result in an adverse impact and change in character. Elsewhere the widened road corridor would become more suburban in character due to the loss of existing planting and the introduction of noise bunds, barriers and retention ponds. However by summer after 15 years, as mitigation planting matured, the impact would be insignificant at a local, regional and national level.
2.123 A visual assessment was undertaken to determine the degree of anticipated change on the visual amenity of people using buildings, areas of public open space, and footpaths (receptors). Measures to mitigate visual impacts were taken into account in the visual assessment. Field based visual envelope mapping was prepared through analysis of OS maps, plans for the proposals, cross-section drawings and field assessment.

2.124 So far as the off-line section is concerned, most of the receptors affected by significant adverse visual impacts would be scattered farms and dwellings. A number would experience substantial adverse impacts; however by summer, 15 years after scheme opening, adverse impacts at the majority of these locations would have reduced to moderate. The reduction of traffic on the bypassed section of the A80 would have a beneficial visual impact on the adjoining settlements of Stepps, Muirhead, Chryston and Moodiesburn.

2.125 Between Mollinsburn and Haggs the majority of visual receptors affected by the proposed scheme are already affected by visual impacts of the existing route. However, in several locations woodland would require to be removed and the landform altered, opening up views from nearby receptors. At one location in Westfield, substantial adverse impacts would occur due to the loss of existing screening, and one property east of Mollinsburn would experience moderate to substantial adverse impact in winter, year of opening. Noise attenuation structures would assist in screening views of the road and traffic from receptors with immediate effect, although it was recognised that these could have negative as well as positive visual impacts. Further mitigation in the form of hedges and native and mixed woodland would provide screening, and would compensate for any loss of existing planting as this became established over time. In a number of locations along the on-line section there would be a slight beneficial impact from improved screening. So far as footpaths and public open spaces are concerned, by summer, 15 years after opening, only one receptor, a path crossing the M80 on the pedestrian footbridge near Auchenkilns, would continue to be affected by moderate adverse impact.

2.126 Overall 340 building receptors out of a total of 1156, and 14 areas of public open space or footways/cycleways out of a total of 33, would be affected by significant (moderate or greater) adverse impacts in the winter, year of scheme opening. By the summer, 15 years after opening, the number of buildings affected by significant adverse impacts would have reduced to 34, and for outdoor receptors, this would have reduced to 6 areas.

2.127 With respect to the Stage 2 Review 2005, since 1997 there have been a number of changes to baseline conditions along both routes: the development of new housing at Carrickstone and Kilsyth; the increased use of the canal; and the initiative to designate the Antonine Wall as a World Heritage Site. As a result the sensitivity of the baseline landscape and visual receptors has increased slightly for both routes.

2.128 Changes have been made to the proposed route, including the reduction in the width of the upgrade. For the on-line section this has reduced the amount of land that would be taken on either side of the road, and consequently the impact on roadside woodland, which has benefits in terms of the landscape character of both the road corridor and adjacent settlements. There would also be benefits for visual impacts, as less existing screen planting would require removal. In addition, there would be greater potential for new screen planting within the road corridor.
2.129 There have been other significant changes to the proposed route since 1997, including, notably, those at Castlecary and Haggs. These changes would be largely beneficial, so far as landscape and visual impacts are concerned. Since the publication of the ES, some minor amendments to the design of mitigation proposals have resulted from representations from statutory and non-statutory objectors. Where possible, the concerns of objectors had been accommodated or mitigated within the design.

2.130 Outline designs for a 2-lane motorway on the line of the KVR, with the options of a tunnel or a cutting at the Antonine Wall crossing, were prepared, and a ‘high level’ assessment was undertaken to allow comparison with the proposed route. The footprint of a 2-lane road would be less than that of the previous KVR proposal, and so adverse landscape and visual impacts would be reduced. The tunnel option would reduce adverse impacts on the setting of the Antonine Wall, and hence on landscape character.

2.131 The overall conclusion was that the published route would be strongly preferred to the 2-lane KVR in terms of impact on landscape character. This is primarily because the entire KVR would pass through countryside where impacts would be new; whereas the majority of the A80 route is on the line of the existing A80, where the character of the landscape is already heavily influenced by the A80, and additional impacts would be limited.

2.132 So far as visual impact is concerned, the 1997 A80 route was slightly preferred over the KVR. The design of the KVR has not been developed to the same level of detail as the published route, and so it is not possible to accurately assess its visual impacts without further development of the drainage design, accommodation works, noise mitigation and landscape works to a directly comparable level. It is therefore not possible to confirm which of the 2 updated routes would be preferred in terms of visual impacts, without further detailed design and assessment of the KVR.

2.133 It was accepted that travellers on a KVR motorway would benefit from views of the Kelvin Valley. However this would be at the price of significant change to the character of the valley, and the enjoyment of other people using the valley would be diminished. If a road is built through a rural area, it is always likely that there will adverse impacts. If practicable, improvement of an existing road is preferable in landscape terms. The confined corridor of the A80 would assist in restricting the impact on the landscape.

The position of Scottish Natural Heritage

2.134 SNH is a non-departmental public body. It has a remit to advise the Scottish Executive, and others, on the natural heritage impacts of policies and proposals. Whilst it will be for the decision-maker (known as the ‘competent authority’) to weigh up whether the natural heritage impacts are outweighed by other benefits likely to arise from a proposal, SNH will advise whether the impacts are likely to give rise to conflict with natural heritage legislation, and whether mitigation, if proposed, is likely to reduce these impacts to acceptable levels.

2.135 In relation to the construction of trunk roads, SNH’s roles are (1) as a statutory consultee, providing advice and comment on the quality and content of ESs; and (2) as an advisor, providing advice to the Scottish Executive on the likely impacts, and their magnitude, on the natural heritage resource arising from construction of the road within the area identified within the Orders. These roles are undertaken within a framework of
legislation, and national and SNH policy, that is in place at the time of the assessment. This can mean that decisions taken some time ago may be found to be less or more acceptable as time moves on, depending on how policy and legislation evolves in the period between the assessment, a decision being taken, and a project implemented.

2.136 SNH has developed policy that explains how it undertakes the duties associated with its role and functions. Three key policy statements are relevant to the consideration of the A80 upgrade: ‘Sustainability and the Natural Heritage’ (TRA 121 and TRA 122), ‘Balancing Duties’ (TRA 124), and ‘Transport’ (TRA 123). Whilst SNH is required to protect and enhance the natural heritage, it is also obliged to bear in mind socio-economic issues in exercising its function. This is referred to as its ‘balancing duty’. SNH undertook its balancing duty in relation to the A80 firstly at a strategic level, by considering the need for a new road. The need for a new road was accepted, that having been determined by the Scottish Executive. Accordingly, the best option would be that which avoided or minimised environmental impacts.

2.137 The Nature Conservation (Scotland) Act 2004 not only makes changes to the way in which species and special sites are protected, but also imposes a duty on public bodies and their office holders to ‘further the conservation of biodiversity so far as is consistent with the proper exercise of those functions’ (TRA 130, Section 1(1)). In selecting the on-line route, Scottish Ministers have taken the requirements of this legislation into account in the decision making process.

2.138 Rejection of the KVR option demonstrates a commitment to sustaining environmental quality, as discussed in SPP 1: The Planning System (TRA 38, paragraph 15), and links directly to the complementary policy on natural heritage in NPPG 14: Natural Heritage (TRA 44). NPPG 14 makes it clear that protection of landscape, recreation and ecology are material considerations when determining the acceptability of a proposal. The importance of the natural environment should not be limited to designated sites alone. A route through the Kelvin Valley would, to a greater or lesser degree, impact on all habitat types listed in paragraph 49 of NPPG 14. In addition, the importance of the landscape as a means of understanding our cultural past, and as a setting for important archaeological features, is recognised at paragraph 12.

2.139 SNH and before it, the Countryside Commission for Scotland, had argued against a route in the Kelvin Valley for 25 years. SNH’s consistent view is that proposals to upgrade the A80 would be likely to result in impacts on natural heritage interests, and that these would be significant if a route through the Kelvin Valley was selected, and greater than those likely to arise from upgrading the route on-line. SNH participated in the consultation process in 1996. At that time the Board endorsed the staff view that the on-line route was preferred (TRA 85 and 126). SNH maintains the view that the on-line solution provides the better option for the natural heritage, as it would minimise direct and indirect impacts on habitats, important birds and animals, landscape character, cultural landscapes, and recreation and tourist opportunities and experiences.

2.140 At the time of route selection, SNH recognised that there would be substantial impacts arising from the A80 route, largely along its off-line section. These issues were addressed within Stage 3 of the process. As well as an updated legislative and policy framework, there have been other changes that have taken place since 1997, which alter the baseline for consideration of the significance of the impacts of both the on-line and off-line routes. These
include: the re-opening of the canal; a number of environmental improvement initiatives, including a proposed community woodland near Croy; the redesign and reduced impacts on natural heritage interests around Castlecary; and various initiatives which demonstrate a more sustainable approach to commuter traffic management.

2.141 SNH had concluded that, on balance, the route advanced within the area covered by the Orders was the best one for society as a whole, being more sustainable in terms of the use of raw materials, minimising impacts on the natural and cultural heritage, and limiting adverse environmental change. Accommodating the route within the existing corridor as defined by the Orders would result in few sites of important natural heritage interests being affected, limited impacts on internationally important species, and limited impacts on sites of cultural and archaeological importance. SNH's advice from internal specialists is that the proposals would not detrimentally affect the Mollinsburn Road Cutting (Geological) SSSI, and indeed would expose the formation to more people, allowing it to be studied and enjoyed by a greater number of the population.

2.142 The ES has provided sufficient information for SNH to be satisfied that there are unlikely to be severe adverse impacts on the integrity of protected species that cannot be addressed through mitigation and compensatory measures. As is standard practice, SNH has indicated that further habitat and wildlife survey work would be required prior to work commencing. So far as construction is concerned, SNH would remain involved, the requirement for its continued engagement being outlined in a protocol, document TRA 135. It is standard practice for SNH to recommend an ecological clerk of works on site, and it would also wish a geological clerk of works in relation to the SSSI at Mollinsburn. SNH would have an input in relation to any licences required from the Executive, for example in relation to otters.

2.143 SNH believes that the Scottish Executive has selected the most sustainable option in natural heritage terms, and that the new route is consistent with Scottish planning policy, the National Planning Framework, obligations towards international and national biodiversity legislation, and policy objectives. It was submitted that this independent support for the scheme was entitled to very considerable weight.

The position of Historic Scotland

2.144 HS is an Executive Agency within the Scottish Executive Education Department. Its predecessor was the Historic Buildings and Monuments (HBM) Division of the then Scottish Office Development Department. Its role and responsibilities are set out in its Framework Document (TRA 119), which is agreed by Scottish Ministers. The Framework Document was updated in 1994, in 2001, and most recently in 2004. All of HS’s functions are carried out on behalf of Scottish Ministers.

2.145 As indicated in paragraph 1.3 of the Framework Document, HS’s mission statement is “…. to safeguard Scotland’s historic environment and to promote its understanding and enjoyment. The historic environment means those structures and places in Scotland of historical, archaeological or architectural interest or importance.”

2.146 In a development context, HS’s remit is fleshed out in paragraph 17 of NPPG 18: Planning and the Historic Environment (TRA 48). Paragraph 1 states that the historic environment encompasses and extends over “…. the tangible built heritage – historic
buildings and townscapes, parks and gardens, designed landscapes, ancient monuments, archaeological sites and landscapes. It also includes the wider setting of these features and areas, as well as places important for their historic associations."

2.147 HS was responsible for undertaking a number of detailed reports and assessments of historic environmental issues for the scheme from 1993. Prior to 1993 HS’s, and its predecessor’s, involvement had been, according to Ms Linge, ‘a rather ad-hoc and hit-and-miss affair’. The catalysts for HS's full engagement in the scheme were the inception of EIA in Scotland under the 1988 regulations, and the development and publication in 1993 of the DMRB which, amongst other things, provided detailed guidance on the application of the regulations within trunk road schemes.

2.148 The development and publication of national policy for the historic environment as part of the Government's commitment to sustainable development, initially through NPPG 5: Archaeology and Planning (TRA 40), added further weight to this process. Although NPPG 5 and NPPG 18 are strictly planning policy documents, and trunk road schemes fall outwith that consent regime, their broad principles reflect national policy in general and are applicable to any development which affects the historic environment. Paragraph 1 of NPPG 18 confirms that care of the country's heritage is a fundamental element of environmental stewardship and sustainable development, which is at the heart of Government policy. Paragraph 20 provides that the Government recognises the historic environment as a finite and non-renewable resource and encourages its preservation and continued use so that it may be enjoyed today and passed on in good order to future generations. Those principles also underlie the Valletta Convention (TRA 193) and the World Heritage Convention (TRA 194).

2.149 The overall philosophy is preservation wherever feasible. The greatest weight attaches to the protection of scheduled monuments, reflecting their statutory position as set out in the Ancient Monuments and Archaeological Areas Act 1979. Two issues arise, namely the direct impact of works on the legally protected area of the monument, and whether any particular development will have an adverse impact on its setting. It has been accepted at recent public local inquiries into the granting of scheduled monument consent that the purpose and focus of the 1979 Act is to secure the preservation of scheduled monuments in situ, and that a principle of minimal intervention applies: the minimum required to secure the preservation of the monument (TRA 188 and TRA 189). The need to obtain scheduled monument consent and the principles which apply to that process apply to the Government in the same manner as with any other developer.

2.150 There is no absolute prohibition of development affecting a scheduled monument, but such development should be permitted only in exceptional circumstances. The weight to be attached to a monument would need to be outweighed by the importance of the development. The question of available alternatives, which would avoid impact on the monument, would also arise.

2.151 From an early stage it was apparent to HS that 3 major archaeological monuments were potentially affected by the proposals – the Antonine Wall, the Forth and Clyde Canal and the Mollins Roman Fort. The Antonine Wall is a prime example of the very few cases where Scottish sites have a recognised significance in an international context. For the Antonine Wall, that significance derives from its status as the most northerly part of the frontiers of the Roman Empire. TRA 191, particularly pages 9, 12, 20-22 and 28-32, set out
the international context and significance of the Roman frontiers as a whole; whilst TRA 192, pages 5 and 25, explain the particular significance of the Antonine Wall within that wider context.

2.152 In 2003 Ministers announced that Scotland would be proposing the Antonine Wall to UNESCO as a World Heritage Site, as part of a wider international initiative to encompass all the frontiers of the Roman Empire. Work is underway in preparing the formal nomination, which has the full backing of Scottish and UK Ministers. It is anticipated that the nomination will be submitted in 2007. On this basis the nomination will be considered for ratification in 2008, although there is a possibility that the timescale might slip by about a year. Any failure in the meantime on the part of the state to protect the Wall could prejudice the ratification of the nomination.

2.153 HS is far from happy about the way the Antonine Wall is managed at present. World Heritage Site status would result in improved recognition, management and access. HS is presently negotiating on these matters with stakeholder bodies.

2.154 The linearity of the Wall is recognised to be a feature which makes it special and, in world heritage terms, is one of its outstanding values. This gives greater force to HS’s longstanding policy of ensuring that the surviving physical remains of the wall are preserved, not in a vacuum, but within an appropriate landscape setting. In this regard HS has started the process of defining a buffer zone for the Antonine Wall. It is likely that it will encompass, at a minimum, the whole of the Kelvin Valley, where views to and from the significant Barr Hill and Croy Hill sections are particularly important. The illustrations on pages 9 and 27 of TRA 192 demonstrate the importance of this open setting to a proper understanding and appreciation of the nature and function of the Wall. This part of the Wall is on the longest section which is open to walkers. The linear continuity is clearly visible stretching to Barr Hill from Croy Hill. As indicated in TRA 190, paragraphs 4.25-4.26, the KVR would have a significant impact on both the line of the wall itself and on its wider landscape setting.

2.155 Insofar as the scheme itself is concerned, HS is content that the proposed route would not have a significant impact on the historic environment. Further, its development would not conflict with international, European, national and local policy for the historic environment. The most significant historic environment assets within the route corridor have been successfully avoided through careful route planning. Table 16.4 in the ES records 3 potentially significant impacts (on South Broomknowes peat basin, Monklands and Kirkintilloch railway, and Mollins Roman Fort) and a number of minor and lesser impacts on individual sites. However HS is content with the assessment made and the mitigation outlined. The overall potential level of impact of the proposed route on the historic environment is relatively low because of the substantially on-line nature of most of the scheme, in contrast to the potential of the KVR to disturb and destroy a far greater number of both known and unpredicted elements of the area's historic environment resource.

2.156 The 1990 Feasibility Study Report (TRA 76) must be seen in the context of its time. It predates the inception of formal EIA for this scheme and HS’s detailed involvement in its route planning and assessment. At that time HBM was still operating at the tail end of an era when an ethos of rescue archaeology prevailed. Prior to the establishment of the national policy framework set by NPPG 5 in 1994, the inevitability of the destruction of archaeological sites when faced with development pressure tended to be more readily
accepted, and the most common response was the excavation of sites prior to their
destruction, whatever their relative significance. The inception of EIA and the promotion of
a more sustainable approach to the nation’s archaeological heritage through NPPG 5 radically
changed that position.

2.157 As was the norm at the time, HBM was only marginally involved in this study.
Babtie sought its views in September 1989 on a revised alignment of the Green route where it
crossed the Antonine Wall west of Croy. Views were sought only on the likely impacts of
that revised route on the Wall. HBM was not shown the full route alignment, nor was it
informed of the other (Red) route then under consideration. HBM’s 1990 response to that
limited consultation is reproduced in Appendix I of the Feasibility Study Report (TRA 76). It
must be read in both the context of the very specific consultation with HBM in 1989, and in
the wider context of the times.

2.158 HBM’s statement simply addresses the alignment of the Green route as it crosses the
Antonine Wall west of Croy. It accepts as inevitable that any improvement of the A80 would
have an adverse impact on the Wall, and that, in those circumstances, a crossing at Croy
where the Wall was no longer upstanding would be preferable to impact on a more visible
section. It did not question whether there might be alternatives which might avoid any
crossing of the Wall, and does not appear to be aware of the Red route.

2.159 HBM’s statement accepted the principle of this crossing point as the most suitable
from the point of view of the monument. However even then it raised a number of detailed
concerns, including concerns about impact on the wider setting of the Wall; the significant
level of destruction the width of the cutting would cause to the Wall; and the substantial level
of archaeological excavation which would be required to offset that loss. Consequently HBM
sought to keep the cutting as narrow as possible and was concerned about the additional
impact of associated slip roads.

2.160 HBM’s advice was not sought on the relative assessment of historic environment
issues to inform the 1990 Feasibility Study Report, and it did not see a copy of this report at
the time. HS now considers that this assessment of historic environment issues was
significantly flawed, even against the background of HBM’s acceptance, in principle, of an
Antonine crossing on the general line of the Green route then under consideration. In general
its methodology does not give due weight to the historic environment as an environmental
issue in its own right, in contrast, for example, to its treatment of ecological and landscape
issues. Within Chapter 9 the historic environment (in effect the Antonine Wall) is treated as
a subset of recreation, where the visibility, or otherwise, of the monument is the main
assessment factor, and no consideration or weight has been given to its relative significance
and intrinsic value as a monument protected in the national interest under the Ancient

2.161 Even within its own terms, the 1990 Feasibility Study Report also displays major
factual errors. For example, it does not acknowledge or appreciate the full significance of
Castlecary Roman Fort as a monument in state care. Perhaps more significantly, contrary to
what was clearly demonstrated by HBM’s 1990 response, the Antonine Wall has not been
removed by quarrying, and substantial buried remains do exist where crossed by the Green
route.
2.162 Perhaps even more significantly, the summary assessment at section 9.5.3, that the Green route would cause higher adverse impact on recreation interests, while the Red route would have greater adverse impact on heritage and archaeological interests, is not true. The full picture is that both routes then under consideration would have had a major adverse impact on cultural heritage interests of national importance. In addition, the recreational value of Castlecary Roman Fort as a monument in state care does not seem to have been considered. However it was accepted that had the full picture been known at the time, the Green route would still have presented the lesser of two evils because HBM could not have supported the destruction of Castlecary Roman Fort, given its enhanced status. That position is confirmed in HS’s 1996 statement to the Consultation Forum (TRA 190).

2.163 HS formally reappraised both of the 1990 routes in 1994 following the preparation of the Phase 1 Desk Assessment and Phase 2 Field Evaluation Reports, which provided detailed baseline information for both route corridors. On the basis of that information HS concluded that both routes were far from ideal from a historic environment perspective. Both had significant adverse impacts on the Antonine Wall: the A80 Route removing the whole of the wall fort at Castlecary which is in state care, while the KVR would have removed the substantial section of the Wall at Croy described in HS’s 1996 statement (TRA 90, paragraphs 4.2.5-4.2.6 and illustrated in TRA 198, maps 1 and 2). The then A80 alignment would also have required a new crossing of the Forth and Clyde Canal and would have destroyed Mollins Fort. The KVR alignment was broadly similar to the 1996 alignment and would have had much the same impact on the Forth and Clyde Canal as described in paragraph 4.3.3 in the 1996 statement.

2.164 Of these impacts the loss of Castlecary Roman Fort was fundamentally unacceptable to HS, given its significance and status as a property in state care. For that reason alone in 1994, HS indicated a very reluctant preference for the KVR, as the marginally better of 2 very damaging alternatives. However HS did make clear that, but for the impact on Castlecary, its natural preference would have been for the A80 option since, as a predominantly on-line improvement, it would have less overall impact on the historic environment.

2.165 Neither of these routes was progressed. Both were subject to a number of refinements and it was those refined route alignments which were subject to the detailed 1996 comparative assessment. The background to the 1996 assessment and the routes then under consideration is set out in the ES (TRA 92, paragraphs 3.1.7-3.1.11). The key to HS’s position on route selection since the preparation of the detailed archaeological studies in 1994 has consistently been the impact of route options on 3 key sites – the Antonine Wall, the Forth and Clyde Canal and Mollins Roman Fort. HS has consistently attached the greatest level of significance to the preservation of the Antonine Wall, above all other sites. This is reflected in its statement to the Consultation Forum in August 1996 (TRA 190).

2.166 In this statement HS confirmed a clear preference for the A80 route option. Although both route options would still have serious implications for the area’s archaeological heritage, HS’s preference was based on an assessment of the relative significance of the sites affected and the relative weight of Government policy for their protection which attaches to them. Late revisions to the A80 alignment in the Castlecary area, which removed a direct threat to the Antonine Wall Fort at Castlecary, a particularly important monument in the Secretary of State’s own care, caused HS to shift its previous reluctant preference for the KVR to a clear and outright preference for the A80 route (TRA 190, paragraph 4.1).
2.167 The only major drawback to the A80 route was its impact on Mollins Fort, a site of recognised national importance. In contrast, the KVR would have major impacts on 2 sites of national importance – the Antonine Wall and the Forth and Clyde Canal – and would have the greater impact on the built heritage resource of the area as a whole. In weighing up these impacts HS placed greatest stress on the preservation of the Antonine Wall, given its international significance and the weight of HS’s policy towards its protection. Thus, important though it may be in other respects, the preservation of Mollins Fort was a lower priority than that of the Antonine Wall, and in favouring the A80 route HS was prepared to accept its destruction subject to full excavation and recording in advance (TRA 190, paragraph 5.1).

2.168 For the KVR, a tunnelling option was also considered. A combination of a jacked box tunnel flanked by cut and cover sections either side was assessed. This would have involved jacking the tunnel boxes into position under the approximate 125m width of the scheduled section of the Antonine Wall, at sufficient depth to clear the monument (5m minimum was considered sufficient to clear the depth of the ditch, the deepest part of the monument). HS did not raise any objection to the principle of a tunnel under the Wall and accepted that it might address the issue of direct impact on the Wall itself, provided that it posed no additional risk to the monument. HS was content with assurances given that there would be no significant construction risks to the monument from use of this existing tried and tested technology, despite the boxes being the longest ever constructed.

2.169 Although such a tunnel would potentially remove the direct impact of the road on the scheduled section of the Wall, its cut and cover sections would still have an impact on any surviving archaeological deposits either side. Considerable ground disturbance close to the monument would also ensue from the jacking methodology itself, including the construction of the jacking base for the launch of the tunnel. In assessing the issue of the likelihood of further archaeological discoveries in the cut and cover sections, and as a result of engineering works hard against the boundary of the scheduled monument, HS advised that this was always a possibility and that the likelihood generally increases the closer the proximity to known archaeological sites. In the case of the Antonine Wall, the likelihood of further discoveries associated with the Wall or its later post-Roman usage was considered to be fairly high. HS’s experience of archaeological excavation elsewhere along the Wall is that unexpected discoveries, particularly along the back of the Antonine Wall, are not uncommon. These considerations would not in themselves argue against a tunnelling option, but they do indicate that a substantial amount of archaeological evaluation and excavation would be required to clear the total area of ground to be disturbed prior to tunnelling work commencing, and that this would need to be factored into costs, timing and methodology.

2.170 More significantly, the tunnel would not have addressed the adverse visual impact of a major new motorway crossing the Kelvin Valley on the wider setting of both the Antonine Wall and the Forth and Clyde Canal. Adjustments to the road’s vertical profile and geometry to accommodate both a tunnel under the Wall and a major oblique crossing of the canal, together with the landscape impact of tunnel flanking walls and portals, might in fact have increased this visual impact on the monuments. Thus, in terms of overall impact on the historic environment, the A80 option was still preferable.

2.171 Both the A80 Route and the KVR were considered as part of the Strategic Roads Review (TRA 10). The summary appraisal table for the A80 Route records a score of
'negative large' for heritage, because of the impact on the scheduled Mollins Roman Fort (now resolved by detailed design). The score for the KVR is 'negative very large' ("national disaster"), because of its adverse impact on the Antonine Wall. The latter score arises from guidance in the new appraisal methodology (NAM), described in TRA 10, Annex 2. While the terminology provoked concern at the inquiry, it simply reflects the Antonine Wall's acknowledged international significance, and the KVR's major direct physical impact on, and its visual intrusion into the immediate setting of, the Wall. The process was no more than a separate overview of the work of others, to provide reassurance that the overall outcome of work carried out throughout the trunk road network, in respect of several schemes, was fair and reasonable.

2.172 Changes in circumstances since 1996 have tipped the balance even further in favour of the A80 route. These are the developments in relation to the Antonine Wall, the removal of the major threat to the preservation of Mollins Roman Fort on the proposed route; and the restoration and re-opening of the Forth and Clyde Canal under the Millennium Link Project, which has revitalised the canal as a recreational, educational and tourism resource.

2.173 Some objectors have suggested that the Antonine Wall does not survive in the area crossed by the KVR, and that, in contrast, the impact of the A80 route on the Wall in the Castlecary area had not been properly assessed. Neither of these claims is supported by the archaeological and cartographic evidence for the sections of the Antonine Wall either on, or close to, both route options.

2.174 While parts of the Wall have been damaged and lost in the course of previous years, when less importance was attached to such matters, that which remains is a finite non-renewable resource, and past damage should not be used to justify further harm. Although the Wall is not visible at the KVR crossing point, it is a scheduled monument and it is known from trial excavations nearby that important buried archaeological deposits survive. Experience of excavations elsewhere along the Wall has shown that surface impressions are often misleading, and that significant and extensive evidence can survive in often the most unpromising circumstances. Although there is some surface evidence of quarrying over part of this section of the Wall, this will not necessarily preclude the survival of the monument over substantial areas, particularly as its original form is difficult to entirely efface.

2.175 In the case of the A80 Route, because the alignment at Castlecary is substantially on-line, there would be no significant impact on the Antonine Wall. HS is content that a small potential impact on an extrapolated alignment angle on the west side of the Red Burn is not significant given the lack of certain evidence both for the line of the Wall here and for its survival (TRA 198, paragraphs 3.1.1-3.1.2 and maps 3 & 4). That has precluded HS from taking legal action to schedule this projected section of the Wall. In those circumstances and in line with national policy, HS would not oppose development in this area, provided that the area was subject to prior archaeological evaluation to test for the survival of archaeological evidence and record any which might come to light. Paragraph 16.4.39 of the ES confirms that this would form part of the archaeological mitigation strategy for the scheme as a whole.

2.176 HS would dispute the suggestion that the KVR is on the line of an existing road, which already cuts the Wall. Reference was made to figure 52 of the 1997 Stage 2 Report (TRA 88) and TRA 198, maps 1 and 2, which show that the KVR is not on the line of the existing B802, but cut diagonally through the Wall on a totally different alignment some distance to the west. In contrast, the A80 route is directly on the line of an already existing road.
road as it passes through the assumed line of the Wall, and would not significantly affect the Wall which has been lost at this location (TRA 198, maps 3 and 4).

2.177 Finally, HS is content that the assessment of impacts on the historic environment made in the ES (TRA 92, chapter 16) is correct. There would be no significant impacts on either Cumbernauld House (listed category A) which lies some distance from the proposed route, nor on the Cumbernauld Village Conservation Area and the B and C(S) listed buildings within it. Their position in relation to the road would not be significantly different to that pertaining today. With the scheme in place, there might in time be a visual improvement.

Noise and vibration

2.178 Sources of Government guidance include SDD Circular 10/99 (TRA 98) and the accompanying PAN 56 (TRA 51), both entitled ‘Planning and Noise’; Calculation of Road Traffic Noise (CRTN) (TRA 99); the Noise Insulation (Scotland) Regulations 1975 (TRA 101) and the DMRB.

2.179 The World Health Organisation (WHO) publication ‘Guidelines for Community Noise’ (TRA 105) advises that, to protect the majority of people from being seriously annoyed during the daytime, the sound pressure level on balconies, terraces and outdoor living areas should not exceed 55dB LAeq for a steady continuous noise. Road traffic is considered to be steady continuous noise, and a level of 55dB LAeq translates into a level of 58dB LA10 for the same time period. However this is a free field level and the predicted levels at residential properties within the ES are façade levels. The façade levels are 2.5dB(A) greater than the free field levels (because of the pressure doubling effect) and therefore the corresponding WHO façade LA10 level would in fact be 60.5dB LA10 for the same time period. Dr McKell commented that the WHO guidelines are very precautionary in terms of noise levels: they are an ideal level, very often exceeded.

2.180 Part 7 of the DMRB, Volume 11 deals with noise and vibration and details procedures for estimating changes in traffic noise nuisance when a new road scheme is planned. These procedures rely on the results from surveys which have examined the relationship between objective measures of road traffic noise outside residential properties and the percentage of people bothered by road traffic noise. The National Environmental Survey 1977 has shown that once people become accustomed to a change in noise, their general dissatisfaction with traffic noise does not alter until changes in noise levels, on the LA10,18h scale, exceed at least 3dB(A). However, in the period immediately following the completion of a road scheme, people may find appreciable benefits or disbenefits when noise changes are less than 3dB(A). Research reported within DMRB indicates that an abrupt change in traffic noise as small as 1dB(A) may result in a 21% change in the number of people bothered very much or quite a lot by road traffic noise. A noise disturbance assessment is, therefore, made for all properties where the noise change is expected to be 1dB(A) or greater. This change in noise level would be produced by a change in traffic flow of approximately 25% assuming that other factors, such as the average speed and the percentage of heavy goods vehicles, remain unchanged.

2.181 All of the above guidance and legislation, with the exception of the WHO publication and PAN 56, refer to road traffic noise in terms of LA10,18h and existing noise in terms of either LA90,T, or LAeq,T where road traffic does not dominate. The LAeq is an energy parameter, and can be considered as an average over a given time period. The LA90 and
LA10 are statistical parameters, and represent the noise levels exceeded for 90% and 10% of a measurement period respectively. Consequently, the LA90 is determined by the quietest 10% of a given measurement period, with the LA90 of a one hour period being determined by the quietest 6 minutes. Night time noise levels are usually about 10 dB(A) lower than those during the day.

2.182 The operational noise impact was evaluated in accordance with DMRB guidance and is presented in Chapter 15 of the ES. The DMRB assessment requires calculation of the changes in noise levels. Whilst the DMRB generally considers future year comparisons, namely, year of opening (2010) and design year (2025) for both the do-minimum and with-scheme scenarios, the assessment in this case was based on a comparison of the existing situation with the with-scheme scenario. This was done because the design target was to ensure that, where practicable, there would be no increase beyond current ambient levels; and because it would assist local residents to relate the impact of future predicted levels to the noise level currently experienced.

2.183 The proposed scheme would result in a mostly beneficial impact on the area, when compared to the existing situation. Approximately 3200 properties would experience a reduction in noise levels, whilst approximately 400 properties would experience an increase. Along the existing A80 between Stepps and Mollinsburn, approximately 700 properties are predicted to benefit from reduced noise levels, whilst approximately 300 properties would be adversely affected by a substantial increase in noise levels as a result of the new off-line section of the route. Almost all of the approximately 2500 residential properties along the proposed upgraded road between Mollinsburn and Haggs would experience a decrease in noise levels when compared to current levels, mainly due to the mitigation measures put in place.

2.184 Mitigation measures would include noise bunds and close-boarded timber fences, and low noise surfacing. The fences would generally be 2 or 3m high. The low noise surfacing would achieve a reduction of 2.5dB(A). Some properties on the off-line section might be eligible for noise insulation. This would be assessed a year after the road opened.

2.185 Some properties would be affected not only by changes on the A80, but also by changes in local traffic patterns. For example, some 100 properties on, and close to, Main Road in Dalshannon and Condorrat would not benefit from the proposed scheme, because of the predicted increase in traffic on Main Road. However these properties would also experience an increase in noise if the proposed scheme did not go ahead, due to increases in the traffic using Main Road.

2.186 With acoustic barriers in place, the great majority of residential properties between Mollinsburn and Auchinricht, outwith the Dalshannon and Condorrat area, would experience a decrease in noise levels compared to existing levels as a consequence of the proposed scheme (TRA 92, tables 15.9a and 15.9b). The significance of impact was described as mainly moderately to substantially beneficial.

2.187 Generally, where there is a predicted decrease or increase in the noise level, there would be a corresponding decrease or increase in the number of people likely to be bothered by airborne vibration. It has been found that the LA10,18h index, which is the parameter used to assess road traffic noise, is among the physical variables most closely associated with average vibration disturbance ratings (TRA 92, paragraph 15.2.30). At noise levels below
58dB LA10,18h, it should be assumed that no people would be affected. This relationship only applies to unscreened properties within 40m of the road. No evidence has been found to support the theory that traffic-induced ground-borne vibration is a source of significant damage to buildings (TRA 92, paragraph 15.1.7).

2.188 It is not possible at this stage to predict with any degree of accuracy the noise levels resulting from construction activity. However the contractor would be required to adhere to BS 5228: Noise and Vibration Control on Construction and Open Sites: 1997 (TRA 102). All reasonable, practicable methods of noise mitigation would be employed during construction works. Further, the Control of Pollution Act 1974 enables local authorities to impose conditions on the way in which work is carried out, and to provide maximum permitted noise and vibration levels. Best practice methods would be agreed with the local authorities, and monitoring requirements would be set. If the proposed scheme did not proceed, the A80 would nevertheless require to be reconstructed, and so some construction noise would be an issue irrespective of what happens.

2.189 The Stage 2 Review 2005 (TRA 144) took account of changes in available data and changes in traffic modelling since the 1997 Stage 2 Report, and updated the assessment of potential traffic related noise and vibration impacts associated with both the KVR and the published route. Dr McKell considered the Kelvin Valley to have a quiet rural nature, albeit with odd noisier events, such as passing cars. Recent measurements indicate that, at some locations, ambient levels are lower than those reported in 1997. The methodology used in the Stage 2 Review, and presented in table 4.8.3 of that report, provides a better representation of the noise levels in the valley.

2.190 Traffic conditions have changed since 1997, and traffic is the significant variable contributing to changes in noise levels since the 1997 Stage 2 Report. A review of the basic noise levels at a number of sample properties was carried out using the current traffic flow variables for both the KVR and the A80 Route. This resulted in lower basic noise levels for the KVR, and a greater reduction for the A80, though table 4.8.5 of TRA 144 demonstrates that noise impacts for the KVR would be likely to be of a similar magnitude to those presented in the 1997 report. In the KVR scenario, the impact of the volume of traffic still using the A80 is shown in table 4.8.6. At all sample properties, with the exception of Crow Wood House and 21 Rosehill Drive, the A80 traffic generated noise levels, with the KVR in place, are greater in 2025 than the noise levels with the proposed scheme in place, with mitigation. A similar picture arises for 2010. In summary, the Stage 2 Review 2005 indicates that the noise impacts for the KVR would be greater than previously reported, while the benefits for existing A80 properties if the KVR was built would be likely to be less than previously reported.

2.191 It would be difficult to justify the introduction of mitigation measures on the A80 if the KVR was built. There are other roads in Scotland with noise above WHO levels, where residents do not have the benefit of noise barriers. Furthermore, there are practical issues about the availability of land and the siting of noise barriers.

2.192 If residual traffic on the A80 was below the levels predicted, then noise levels would be reduced. However noise levels would increase elsewhere, depending on the location of the diverted traffic. If traffic increased on side roads, a lot more people would be bothered by noise. In any case, a halving of traffic flows generally results in a reduction of only 3 dB(A). Thus, even if residual traffic flows on the existing A80 were to be half those predicted, noise...
levels would still be substantial. In all these circumstances, it was submitted that it was extremely difficult to envisage circumstances which would lead to the objectors’ aspiration for a quiet A80, after the construction of a KVR.

**Air quality**

2.193 The policy framework for air quality assessment is set by the Government’s Air Quality Strategy (TRA 110) for England, Scotland, Wales and Northern Ireland, published in 2000, together with its Addendum (TRA 111) published in 2003. The Strategy was produced as a requirement of the Environment Act 1995. The Environment Act also introduced the system of local air quality management, whereby all local authorities have to carry out regular reviews and assessments of air quality within their area. If a likely exceedence of an objective is identified, then the authority must declare an air quality management area and prepare an action plan. None of the relevant local authorities, North Lanarkshire Council, Falkirk Council, East Dunbartonshire Council and Glasgow City Council, has identified a likely exceedence in the vicinity of the proposed scheme.

2.194 The Air Quality Strategy identifies 2 key pollutants associated with road traffic. These are nitrogen dioxide (NO\textsubscript{2}) and particulate matter less than 10 micrometres in diameter (PM\textsubscript{10}). They are the pollutants that are most at risk of exceeding the relevant UK statutory air quality objectives and EU limit values. Both pollutants are capable of giving rise to adverse health effects in susceptible individuals. The air quality objectives only apply at locations where members of the public are likely to be exposed to air pollutants for the time period specified in the objective.

2.195 Impacts were assessed for 27 receptors alongside roads where changes are expected to be greatest, and where absolute concentrations are likely to be highest. Future year traffic was based on worst case assumptions of growth. No allowance was made for measures to limit traffic growth. The modelling took account of wind direction and speed, but not temperature inversions. Traffic speed was taken into account to some extent. While background concentrations are substantial, concentrations arising from main roads drop off rapidly, tending to be indistinguishable from the background beyond about 20-30m. Table 4.8.1 in the Stage 2 Review 2005 (TRA 144) indicates that there are 55 properties within 50m of the published route.

2.196 Future baseline concentrations are predicted to be lower than current levels, because of reduced emissions from new motor vehicles. The scheme itself would give rise to impacts ranging from moderate beneficial to moderate adverse, compared with the do-minimum. More locations would experience beneficial impacts rather than adverse impacts. The benefits would be greatest in Muirhead, Chryston and Moodiesburn, where the new route would take traffic off the existing A80. Between Mollinsburn and Haggs, the majority of impacts would be insignificant. Throughout the route length, none of the receptors would experience concentrations above the air quality objectives. The scheme would comply with the Government's air quality objectives, which are set for the protection of health.

2.197 Emissions of pollutants, such as ozone and acid deposition, which contribute to regional impacts, are predicted to be lower in both 2010 and 2025 than 2003, with or without the proposed scheme. This is despite the growth in traffic over this period, and reflects the role of tightening controls on vehicle emissions. The proposed scheme would, though, give rise to higher emissions compared with the do-minimum situation in any particular year.
These changes range from negligible to medium increases, and are due mainly to the extra traffic attracted to the road.

2.198 In the case of carbon dioxide (CO\textsubscript{2}), which is a global warming gas, emissions would increase over the period 2003 to 2025, with or without the scheme. This is due to the general growth in traffic over this period, which is greater than the expected improvements in fuel efficiency of vehicles. As with the other pollutants, the proposed scheme would increase emissions compared with the do-minimum.

2.199 The changes in regional emissions of NO\textsubscript{2} and PM\textsubscript{10} would be negligible – less than 1%. For CO\textsubscript{2}, the increase would also be negligible – less than 0.01% of UK emissions. The overall contribution of the proposed scheme to wider scale impacts would thus be insignificant.

2.200 The construction of the proposed road has the potential to generate dust. The main sources of this dust would be vehicles moving over dry ground, the handling of dusty materials, and the cutting of concrete. There are no nationally recognised assessment criteria for construction dust. If appropriate mitigation measures were applied, it is unlikely that there would be any significant dust impacts more than 100m from the proposed works. Locations within 100m of the proposed works do, however, have a significant risk of experiencing dust soiling at some point during the construction phase. Similarly, any residential properties that are within 25m of the proposed works might occasionally experience elevated PM\textsubscript{10} concentrations. Any impacts would be likely to be short-lived.

2.201 Since the Stage 2 assessment, there have been major changes in both the assessment methodology and assessment criteria. These changes mean that the absolute values used in the Stage 2 assessment can no longer be relied upon. However the relative changes, with and without the schemes, are still relevant. Thus the conclusion that either option would have a beneficial impact on local air quality still stands. More specifically, both the A80 Route and KVR would offer the same substantial benefits for properties affected by traffic in Muirhead, Chryston and Moodiesburn, while for the remainder of the study corridor, the KVR would offer a greater improvement than the A80 Route.

2.202 To bring the analysis of the 2 routes more up-to-date, an assessment of the overall impact of both schemes was carried out using the general approach set out in STAG, which has been used as a best practice guide. The actual methodology used is that described in the Transport Analysis Guidance (TAG) (TRA 172-174). It provides an overall assessment score, that takes account of the changes in concentrations and the number of people exposed to these changes. A negative score represents an overall improvement in air quality. The score is calculated separately for NO\textsubscript{2} and for PM\textsubscript{10}. The results are set out in table 4.7.2 in the Stage 2 Review (TRA 144) and are reproduced in TRA 171. There is a negative score for both pollutants, for both routes, and thus both options would have an overall air quality benefit. The score is about double for the KVR, showing that this option would be more beneficial in air quality terms than the A80 Route.

Health

2.203 The health impacts of urban air pollution are well established, and small changes in air quality are associated with measurable changes in a range of health endpoints within large urban populations. Across Central Scotland as a whole, exposure to ambient air pollution
may have a role in 500-600 deaths each year compared with a total number of deaths in this area of about 33,000 (TRA 201). By comparison, over 8000 people in Central Scotland die from smoking related diseases each year, including 500-600 non-smokers.

2.204 The role of traffic pollution in the association between air quality and health has been demonstrated in a number of studies. The 2 main pollutants arising from vehicle emissions are fine particles (PM$_{10}$) and oxides of nitrogen, particularly NO$_2$. Regional sources of traffic pollution may contribute to about 20% of the total number of deaths that may be brought forward by air pollution in Central Scotland. Current levels of exposure to air pollution in Central Scotland may be associated with an average loss of life expectancy of about 3 months (for lifetime exposure), of which 12% may be due to traffic sources.

2.205 PM$_{10}$, the fraction of airborne particles that can penetrate to the lung, are thought to be the component of the pollution mix that has the greatest influence on health. Studies of the effects of PM$_{10}$ in large urban populations have found associations between PM$_{10}$ and small changes in the daily death rate, the number of hospital admissions for cardiovascular and respiratory illness, and increased numbers of GP consultations for respiratory illness (TRA 114 and 115). Other studies have shown associations between PM$_{10}$ and increases in respiratory symptoms, particularly in those with pre-existing respiratory illnesses such as asthma.

2.206 The health effects of NO$_2$ are not well established. The results of experiments with human volunteers and animals suggest that NO$_2$ may adversely affect lung function, increase airways responsiveness and respiratory symptoms, and increase the response of asthmatics to allergens. Effects have only been demonstrated, however, at levels of exposure exceeding those found in outdoor air. Epidemiological studies of urban populations have had little power to determine the independent effects of NO$_2$, as concentrations are generally well correlated with those of particles.

2.207 The predicted health effects of the proposed M80 scheme are described in TRA 200. During the construction phase, the main air quality effect would be intermittently raised levels of PM$_{10}$, particularly at properties within 25m of construction work. Mitigation measures would be in place to minimise dust nuisance during construction, and the air quality impacts of airborne dust at local properties should be small. It is possible that slightly elevated levels of airborne dust associated with the works would give rise to some additional respiratory symptoms in a few susceptible individuals, for example, those with pre-existing asthma or allergic rhinitis (runny nose). An additional source of PM$_{10}$ during construction would be diesel emissions from heavy plant. Given the relatively high background of particle emissions from the existing A80, these emissions would be unlikely to make a measurable difference to local air quality, even at the closest properties to the proposed highway.

2.208 Raised levels of dust emission might give rise to visible dust nuisance. While not directly injurious to health, raised awareness of airborne dust and loss of amenity might contribute to higher levels of community stress arising from other impacts such as noise and the impacts of the construction programme on local travel. However, in general, the construction impacts on air quality would be short lived and would not have a long term adverse effect on the health of local residents.

2.209 The traffic pollution impacts arising following implementation of the scheme were estimated using concentration-response functions previously identified and used in a study of
the health effects of air pollution in Central Scotland (TRA 201). Effects were calculated for the population residing within 200m of the proposed scheme and link roads that would be likely to experience a change in traffic flow of more than 10% or more than 5000 vehicles following implementation of the scheme.

2.210 More people would be likely to experience a marginal improvement in air quality than worsened air quality. The effects for people who are predicted to experience either an improvement or a deterioration in air quality would be very small. At worst, a small proportion of people with asthma might experience symptoms on one or 2 more days a year, and a similar number of people might experience symptoms on one or 2 fewer days a year. The scheme would not have a detectable impact on respiratory or cardiovascular health. Furthermore, the overall impact of traffic pollution will reduce over the next few years regardless of whether or not the scheme proceeds, as a result of improvements in vehicle technology arising from current EU legislation.

2.211 There is no published information about the effects of new road schemes on levels of stress in local communities. For most individuals stress associated with changes in their local environment is less severe and shorter lived than stress associated with changes in their personal circumstances. It seems probable that a major new development immediately adjacent to one's property would be likely to lead to high levels of stress, if it represented a substantial change over current circumstances. The proposed routing of the M80 along the A80, however, means that virtually all the affected property owners are already experiencing substantial adverse impacts arising from the existing road and, for most, the development of the M80 would be likely to have only a small impact on existing stress levels.

2.212 Air pollution is a cause of concern in communities throughout the UK, with or without new road schemes, and it is unclear to what extent the proposed scheme is inflating anxiety about air pollution, over that which already exists in relation to the A80.

2.213 Traffic noise is a source of stress. However, noise mitigation measures would lead to reduced noise levels at approximately 3200 residential properties. This compares with the 400 properties, mostly along the off-line section, where noise levels are predicted to increase. The health impacts of any increased noise annoyance would depend on individuals’ susceptibility, and might include small effects on mental wellbeing. Overall the adverse effects arising from increased noise levels would be likely to be much smaller than the benefits of noise reduction elsewhere in the study area.

2.214 A small proportion of Cumbernauld residents may already be subject to a range of adverse health effects resulting from long term exposure to community noise. These include slightly increased risks of hearing impairment and increased stress due to the combination of annoyance, speech disturbance and reduced sleep quality. Hearing impairment is only associated with relatively high levels of noise pollution The levels of noise from the A80 are below the WHO threshold level for hearing impairment – in the sense of health impact. Furthermore, the WHO threshold is very conservative and relates to continuous exposure.

2.215 It is possible that the stress associated with existing noise levels is contributing to mental ill-health in a few of the exposed individuals, but it is unlikely to be the primary cause of any mental illness. It is also possible that stress associated with existing noise levels is sufficient to affect cardiovascular health, although the effect is likely to be small in comparison to other risk factors such as smoking and diet.
2.216 The most serious noise impacts during construction would probably arise in connection with the rebuilding of the North Road and Glenview Avenue bridges. Noise limits would be agreed with the relevant local authorities, including specific limits for night-time working, and these would minimise any adverse health effects in local communities. A few residents might experience some occasional sleep disruption. A larger number of residents might experience annoyance on some days during the construction work that would contribute to general levels of stress and anxiety. No serious, long term adverse effects on health would be expected.

2.217 The health impacts of light pollution are not well understood. For most of the community, the proposed road scheme would not affect levels of light pollution, and light pollution from the scheme would not cause any adverse effects. The greatest risk of light pollution causing nuisance might be during construction. Elevated levels of glare at night could cause sleep disturbance and contribute to the development of stress in a few individuals. These impacts would be likely only during short periods during the construction programme and would not be expected to cause long term effects in local residents.

2.218 Physical inactivity is a major risk factor in the development of cardiovascular disease. However the proposed scheme would be unlikely to make walking or cycling more or less attractive than at present.

2.219 The development of new roads can lead to improved access to services for car owners, with associated ‘quality of life’ benefits leading to improved well-being. However it may be detrimental to local communities, in that easier access to out of town shopping centres and other facilities may lead to the demise of local facilities, reducing the access of socially disadvantaged groups and the elderly to medical care, shops (and healthy food), employment and leisure. This in turn can adversely affect both mental and physical well-being. It is unlikely to be an important issue for the proposed scheme, given that good transport links already exist and local facilities are already competing with more distant providers.

2.220 Community severance by new roads can have a detrimental impact on the access of socially disadvantaged groups and the elderly to facilities, including medical care. Given that the existing A80 cuts through Cumbernauld, the proposed scheme would not increase existing severance there. There would be a reduction in community severance in Muirhead and Moodiesburn.

2.221 A number of objectors raised specific concerns about potential impacts of traffic emissions. It is generally accepted that air pollution is associated with exacerbation of pre-existing asthma, but a large number of other factors also influence asthmatics’ health. No clear link has been established between exposure to ambient air pollution and the onset of asthma. Other better established risk factors for the development of childhood asthma include environmental tobacco smoke, a parent with asthma, predisposition to atopy (development of allergies), and recurrent chest infections.

2.222 Air pollution is linked to an increased risk of acute mortality in all age groups. There is some evidence that the increase in risk is greater for very young babies than for older children and adults of working age. Although it is probable that air pollution does have a small influence on cot death risk, it is less important than environmental tobacco smoke,
sleeping position and room temperature. No increase in the number of cot deaths would be expected as a consequence of exposure to traffic emissions from the proposed scheme.

2.223 There is some evidence to suggest that maternal exposure to high levels of air pollution may adversely affect foetal growth, although detectable effects are unlikely at the levels of air pollution found in Central Scotland. There is no strong evidence to link exposure to air pollution with birth defects.

2.224 There is no consistent evidence to suggest that exposure to traffic pollution is associated with an increased cancer risk in children. A precautionary approach would not be appropriate in relation to studies on childhood cancers and the like. A wide range of normal human activity would have to be stopped on that basis. A precautionary approach would require to be based on at least some evidence demonstrating that there might be a link.

2.225 Older people have a higher risk of death or admission to hospital than others in the population, and may also be more susceptible to the effects of air pollution. Air pollution is not, however, the major cause of mortality or illness in this age group. The small changes in air quality associated with the proposed scheme would not be expected to lead to any changes in the number of deaths or hospital admissions in any age group.

2.226 The implementation of the KVR might lead to a marginal improvement in air quality in some areas of Cumbernauld, provided that the predicted reductions in traffic flow were achieved. The health benefits would be small and would be partly offset by disbenefits at properties close to the KVR. The implementation of the KVR would not be expected to lead to a detectable improvement in respiratory and/or cardiovascular health in Cumbernauld. Some individuals would be likely to experience stress and a loss of well-being arising from disappointment if the KVR failed to deliver expected benefits in Cumbernauld. There could be an adverse effect on the mental and more general well-being of those who currently use the Kelvin Valley for recreation or value this area as an area of open countryside. The benefits, if any, would not be detectable in any epidemiological study. Building a bypass could not be justified on health reasons.

2.227 Dr Searle stated that she had done her best to present an unbiased account of what the research demonstrated. Unlike Dr Moffat, who provided a written statement on health matters for the CCC (CG/WM/13), Dr Searle had given full coverage to studies that have shown effects and those that have not shown effects.

**Non-statutory written objections**

2.228 The vast majority of objectors raised general points relating to the overall scheme. The number of objections greatly exceeded the number of grounds for objection. To avoid repetition, and to ease the handling of the responses, in TRA 31 the non-statutory objectors were grouped against each ground for objection, of which there are 103 general points. Where statutory objectors raised one or more of the general objection points in a manner which did not require a specific response relevant to their property, they were included in the list of objectors.
The objection by Cala Homes/Lynch Developments

2.229 Cala Homes/Lynch Developments have objected to the draft Orders. They state that they may wish to construct a motorway service area (MSA) which would be accessed from the southern end of Hornshill junction, and are concerned that the current junction arrangement may not accommodate their aspirations.

2.230 There is no current planning application for an MSA associated with Hornshill junction, and the TRA has not been provided with any details regarding the specific location, nature or extent of the possible development.

2.231 The North Lanarkshire Council Finalised Northern Corridor Local Plan 2000 (with 2003 modifications) refers only to the opportunity for an MSA on the M80 Robroyston-Stepps Corridor (TRA 62, Schedule 4). It does not specifically refer to Hornshill junction.

2.232 The proposed junction at Hornshill has been designed to accommodate traffic growth up to at least 2010. The flows used include the potential development associated with the Kirkintilloch Link Road.

2.233 Layout plans, traffic flows and junction geometry for the proposed Hornshill junction were provided to Cala Homes/Lynch Development’s agents Dougall Baillie Associates in July and August 2005 to allow them to assess their clients’ proposal, as requested. An assessment of the proposed Hornshill junction was received from Dougall Baillie Associates on 7 September 2005. The assessment concluded that minor changes to the proposed junction at Hornshill would be required to accommodate an MSA junction. The TRA has not had the opportunity to fully analyse the data provided.

2.234 Were planning permission for a development to be granted, then, if the opportunity remained open, the TRA would be prepared to discuss adjustments to the contract to facilitate the development. If sufficient detail was presented, pre-application discussions could take place. Any extra expenditure would be the responsibility of the developers. On the basis of information provided by Dougall Baillie Associates, Mr Gillies confirmed that fresh Orders would not be required.

Proposed amendments to draft Orders

2.235 Following discussion with landowners, the TRA proposes to amend 2 draft Side Roads Orders and the draft Extinguishment of Public Right of Way Order (TRA 216). These amendments are of a very limited nature, and gave rise to no objection from any party at the inquiry.

Additional points from closing submissions

2.236 The route choice decision was made in 1997. Plainly, some people had never accepted that decision, and saw this inquiry as an opportunity to challenge it. However the only matter before the inquiry is whether the draft Schemes and Orders should or should not be confirmed. This is not a matter of weighing the respective merits and de-merits of 2 possibilities and reaching a judgement as to which is to be preferred. That exercise was carried out in 1996/97, and a decision announced on 7 February 1997. This inquiry was not a re-run, nor a review, of that process. Rather, the question at issue is whether there is any
sound reason not to confirm the draft Orders as they presently stand. A possible route elsewhere could not in itself justify a negative answer to that question. Firstly, there would require to be some major deficiency in the proposed route which justified a search elsewhere. There is none. An exhaustive analysis and assessment of the scheme has clearly demonstrated its merits both in terms of improving the road network and of its environmental impacts. Indeed for most of those currently most affected by the A80, the scheme would improve the position, with many enjoying substantial benefits, including residents along the on-line section. Secondly, any alternative would require to be demonstrably superior and free from defects which would or might prevent its implementation. This is certainly not the case regarding the KVR, and no other alternative has been suggested, let alone demonstrated.

2.237 Further, and in any event, there would require to be some reasonable prospect of the alternative proceeding. However, it cannot be said that any view that the KVR is better than that proposed would lead to the building of a motorway through the Kelvin Valley. It is very difficult to envisage the Scottish Executive promoting the KVR in the light of: (a) the policy on constraining future traffic growth; (b) the recent decisions/pronouncements and expert advice in favour of the on-line upgrade and against the KVR; and (c) the opposition which would be mounted against any proposal to resurrect it, not only by local people but also by organisations such as HS and SNH. It is certain that objectors to a KVR would rely upon the material lodged by and on behalf of the TRA in support of the A80 upgrade. In the unlikely event that another public local inquiry was being held into a northerly bypass in 2 or 3 years time, it is very difficult to be confident of a positive outcome.

2.238 In any event, the evidence demonstrates that not only was the 1997 decision on route choice justified, material changes since then, both in respect of the on-line route and other factors, have made the decision even more clear cut in favour of the published route.

2.239 It may be important to appreciate that, contrary to the picture presented by the objectors, it is not a question between the on-line upgrade on the one hand and the KVR on the other. This ignores the residual impacts flowing from the A80, even if a KVR was built. The objectors cling to a hope that if the KVR was built, the A80 would dwindle to a quiet town road, or perhaps be closed altogether. There is no basis for this, especially given the predicted residual traffic flows. It would be unfounded, even reckless, to base decisions now on the aspiration which underlies the objectors' case.

2.240 Even if the focus was narrowed to the interests of those who live alongside the on-line upgrade, the expert analysis is that the large majority would be better off if the on-line upgrade went ahead, because of the introduction of noise mitigation measures and road realignment. There is a good chance that they would even be better off on this scenario than if the KVR was built, because of the likely residual impacts from the A80. All of this flows from the fact that environmental improvements are dependent upon the upgrade. The alternative requires unrealistically optimistic expectations as to traffic flow reduction on the A80 after the opening of a KVR. And even if such could be achieved, it would only be at a cost to others living beside the local road network, which would have to cope with the displaced local and through A73 traffic.

2.241 In any event, the KVR was rejected on environmental grounds, which are quite separate from any discussion of traffic flows and road capacity. Capacity was not a factor in the route choice decision.
2.242 In essence, the objectors have been fighting old battles, and the tide of events has made their task even more uphill. Examples of this include:

- increased experience of managing on-line upgrades to avoid disruption to traffic;
- changes to the on-line route which reduce its environmental impact, for example at Castlecary Glen and at Mollins Roman Fort;
- increased sensitivity of KVR impacts on the Antonine Wall (now a candidate World Heritage Site) and the Forth and Clyde Canal (now a scheduled ancient monument);
- greater emphasis upon environmental assessment and protection of the natural environment and cultural heritage, and thus greater significance attached to the impacts of a KVR; and
- the increased gap between the costs of the projects.

2.243 Another very important change is the abandonment of the ‘predict and provide’ policy to roads schemes, and its replacement with a policy to strive to stabilise traffic at 2001 levels by 2021. This change in policy marks a shift in attitude which will require a change in culture across Scotland. At a time when the Scottish Executive is sometimes criticised for lack of leadership, that cannot be said in this context. Much of the objectors’ case focused on carriageway traffic capacity and a scepticism about the achievability of the 2001/2021 policy. However, the policy is to strive towards this goal. Non-achievement of 2001 levels by 2021 would not equal failure in respect of the general objective to mark a significant change in direction. In any event the assessment of the project has been based on unconstrained traffic growth, and therefore a worst case scenario. However there is no good reason to assume that the policy will be a complete failure. Furthermore, this inquiry was not a vehicle for an examination of the merits of Government policy.

2.244 There has also been criticism of the decision to opt for a more limited capacity upgrade than that recommended, albeit the extra lane was for high occupancy vehicles. However, if followed through, that criticism does not point to a KVR. It simply invites a larger upgrade of the existing road, presumably the last thing many of the objectors would want. Interestingly, it emerged in the course of CCC’s evidence that the objective of at least 2 of its witnesses (Mr Ogden and Mr Freebairn) is to achieve a larger road, whether on-line or not. In any event, there are possible demand management measures other than additional high occupancy vehicle lanes, which could be used to maintain the efficiency of the upgraded motorway.

2.245 The objectors placed considerable store on an announcement made in 1972 which indicated support for a northerly route, albeit one different from that which is now called the KVR. The reality is that much has changed since then, and it would be unrealistic to give any weight to that announcement today. It was clearly superseded by the 1997 decision, and by the publication of the current draft Orders, which are the only formal decision concerning the matter. In reality there was a long period of uncertainty, perhaps even indecision, over the correct route. It is not true that there was a long period when a KVR (or equivalent) was fixed. Various options were considered and different investigations and reports instructed. At no time during this period were formal draft Orders published. If some people bought property on the assumption of certain things happening, again that cannot determine the correct outcome today. The simple fact is that Cumbernauld was permitted to extend to the north of the A80 without any certainty as to whether and when a bypass would be built. Any complaints about this, and as to the absence of community facilities in these parts of the town, should be directed to the responsible planning authority.
2.246 There was intense consultation in 1996. That process has been criticised, but none of those criticisms carry any real weight. The fact remains that a serious and worthwhile effort was made to involve interested parties before the decision on route choice was taken. That was laudable, not a reason for rejecting the ultimate outcome of the process. The route choice decision taken in February 1997 was also informed by the Babtie 1997 Stage 2 Report (TRA 87), which provided a carefully reasoned case for the A80 route. Since then the A80 upgrade has received further intensive consideration. First, there was the Strategic Roads Review, which confirmed the route choice; then the CSTCS decisions, which affirmed Ministers’ commitment to the upgrading, albeit on a more limited basis from that previously recommended. The current draft Orders were then published, these being the first formal decision in the whole history of the matter. An ES has been prepared by experts in their field. There has been no persuasive criticism of the terms of the ES, and it should be accepted in its entirety.

2.247 Faced with the continuing objection based on the KVR, the 1997 Stage 2 Report was reviewed and updated in 2005 (TRA 144). That review destroys any argument for a reconsideration of the decision on route choice.

2.248 The objection based on the KVR tends to ignore the abandonment of the ‘predict and provide’ philosophy of road transport. This is understandable. It is bound to take some time until the implications of such a major change in policy are fully absorbed. The whole thrust of policy now is towards discouraging commuter car travel, and encouraging a shift to other forms of transport. Transport spending is focused on public transport. Land use policy, public transport spending, physical demand management measures, and possibly fiscal initiatives, are aimed in the same direction. The Government has commitments on CO2 to honour. Social inclusion in a relatively low car owning society is an important policy objective. In these circumstances, to build a new motorway through the Kelvin Valley rather than utilise an existing road corridor, would be to swim against this strongly running tide. It would also be contrary to the basic principles of sustainable development, given the opportunity to meet the recognised need by a limited and largely on-line upgrade, rather than a new road. Further, the best form of mitigation is to choose the least damaging route.

2.249 All that said, in fact the published proposals do go some way towards addressing the objectors’ concerns. Reference can be made to the benefits from the off-line section for those most significantly affected by the current road, namely the residents along the section from Stepps to Mollinsburn, and to the mitigation measures proposed for the on-line section.

2.250 Another theme of the objectors is that the economic health of Scotland requires the KVR. This would be a huge exaggeration, even if the general point was well founded. However, it ignores the central objective of current Government policy, namely, to break the perceived link between economic growth and continued increased traffic levels. In particular, the longer distance commuter is to be targeted, and the more economically and strategically important traffic facilitated. The philosophy is explained in recent reports and white papers. Such issues are always a matter of balancing potentially competing concerns and policies. These are political decisions, which are not for adjudication or scrutiny in this forum.

2.251 Nonetheless, it is not the case that confirmation of the Orders would necessarily harm the economic health of the area, nor of Scotland in general. Rather, it can be seen as an appropriate balance being struck between sustainable transport policies, economic growth and other policy commitments and objectives.
2.252 There is much inherent in the objectors' case which is contradictory and inconsistent. For example, on the one hand they argue for an alternative diversionary route, yet also for the downgrading of the A80 to a single carriageway. They criticise the outcome of the CSTCS, and in particular the more limited upgrade; yet also argue that the environmental impacts of it are unacceptable. The A80 has operated as a major road for a long time: it is not possible to turn the clock back and reverse that well established position. Cumbernauld has extended and continues to extend to the north of the A80. In the meantime, the Kelvin Valley has retained its character, free from any major development. It is important always to keep in mind that it was the environmental impact on the Kelvin Valley, and the inability to mitigate those impacts, which determined the route choice decision (TRA 87, paragraphs 7.3.10-7.3.11).

2.253 The scheme itself, with the exception of the off-line section, amounts to a relatively small, though still important, change to the current situation. Not only has the scheme been the subject of a very substantial level of consultation prior to the route choice decision (see TRA 86-87 and 125), it has been comprehensively studied and assessed in a variety of other ways. For example, (and in no particular order) reference can be made to the 1997 Stage 2 Report and the folio of drawings (TRA 87-88); the ES (TRA 92-95) and the Stage 2 Review 2005 (TRA 144). In addition there has been the Stage 3 Assessment Report Part 2 Engineering/Traffic and Economics Assessment (TRA 142); the Luggie Water Flood Study Report 1997 (TRA 117) and the Luggie Water Flood Risk Assessment 2004 (TRA 118). The documentation also contains the SNH Assessments (TRA 126, 128,133 and 153); the Traffic Growth Report 1994/2004 (TRA 136); an Accident Analysis Report (TRA 137); the Traffic and Demand Management Working Paper (TRA 138); the Land Model Validation Report (TRA 139); the Transport Model for Scotland – Impact of Scheme, Technical Note (TRA 141); the Do Minimum Engineering Assessment (TRA 143); the Road Safety Audit (TRA 145); the Cycle Audit (TRA 147); the Traffic Management Report (TRA 152); the Scheme Objective Appraisal Report 2005 (TRA 155); the Departure Reports (TRA 156-157); the Policy Impact Summary Tables (TRA 160-162); the TAG Assessments (TRA 171-174); the Studies etc on Floodplain Storage Displacement (TRA 175-176); the SUDS Retention Ponds Report (TRA 179); the HS statement to the 1996 Consultation Forum (TRA 190); and a Health Impact Assessment (TRA 200).

2.254 In addition there has been the scrutiny contained in the precognitions for the inquiry, which themselves have been subject to cross-examination and questioning. In that regard the promoters have responded in a careful and comprehensive manner to all of the statutory and non-statutory objections to the scheme. Reference was made to TRA 31-5, 214 and 217, and to the sections in the precognitions which responded to matters raised by objectors.

2.255 On one view it is remarkable that so much has been devoted to a proposal which largely consists of an upgrade to an existing road, a proposal which has itself been criticised for being too limited in scale and capacity.

2.256 While there has been opposition to the scheme at the inquiry, it is reasonable to assume that many support and would greatly welcome the benefits the scheme would bring. Also, there are opponents to the KVR, some of whom withdrew from active participation in this forum when they realised that the outcome could not be a KVR. The local MSP has confirmed that there are divided views on the issue of a KVR (letter dated 9 September 2005).
2.257 The focus of CCC was not on the impacts of the scheme as compared with the current position, but rather the scheme as against the position CCC would wish it to be; and in particular the position CCC would have desired had the KVR been built and the A80 de-trunked and downgraded to a quiet town road. There is no sound basis for, nor utility in, such a comparison when assessing the current scheme. On any reasonable view of the probabilities, the A80 will remain a busy road with substantial traffic flows. There is no sound basis for making decisions now based on a very different scenario. Further, even if the predicted traffic flows on the A80 after a KVR was halved, this would have only a small effect on noise levels. CCC complained that the impact of the scheme was being assessed against a baseline of the existing situation, but not only is this the standard approach, no other is practicable for assessing the impacts of a scheme or for providing a basis for decision making.

2.258 There is no real dispute over many of the factors in favour of the scheme. In the agreed statement (TRA 212) CCC acknowledged the need for a scheme. The factors in favour include the need for completion of the motorway network; the benefits which this would bring to the local and wider community; the improvements which it would provide for many of those most directly affected by the A80 at present; and its consistency with current Government policy on restricting traffic growth and promoting sustainable transport.

2.259 The main areas of dispute related to the nature and extent of the environmental impact of a KVR and the likely outcome for the existing A80, should a KVR be built. On this latter issue, CCC were, for obvious reasons, unable to lead evidence on traffic modelling in response to the Babtie predictions. Their position seemed to change over the course of the inquiry. Its fluidity may simply be a function of its aspirational nature. Their ultimate position was not set out in their statement of case, nor in their precognitions. There were also inherent inconsistencies; for example, having regard to the claimed benefit of using the A80 as a relief road for a KVR; and also the desire to increase road capacity for the benefit of the Scottish economy.

2.260 Nonetheless, in the course of the inquiry, it became clear that CCC would wish the A80, after de-trunking, to be reduced to a single carriageway road, and possibly subjected to a number of measures adopted to restrict or discourage traffic flow. It was worth reiterating in this context that the KVR was rejected on environmental grounds, which not only remain, but have increased in significance since the decision on the route was taken. The issues of capacity and traffic flow are at best of secondary importance. However, given the way that CCC questioning developed on this issue, for example, at times postulating closure of the A80, it was thought desirable to ascertain the views of the responsible officers of NLC. This led to the flurry of correspondence and other documents (including TRA 218) lodged on day 9 of the inquiry. While for understandable reasons the objectors claim comfort and reassurance from the letter of 14 October 2005 on behalf of Mr Porch, NLC’s Director of Planning and Environment, a careful examination reveals that it does nothing to blunt the straightforward terms of the letter of 12 October 2005. Nor does it suggest that the A80 will not remain a 2-lane dual carriageway. To say that NLC would in future examine road safety aspects if people were attempting to cross the A80, is nothing more than a statement of the obvious.

2.261 The reasonable conclusion from the correspondence taken as a whole, is that there is no basis whatsoever for proceeding on an assumption that if a KVR was built, the A80 would be anything other than a dual carriageway, with a substantial traffic flow generating
significant noise levels along the road corridor. In any event, as Mr Porch observes, any reduction in the capacity of the existing A80 road would encourage drivers to use Westfield Road/ Eastfield Road and Main Road, Condorrat/Mollinsburn. Additional traffic on these routes would have an adverse effect on the local villages, and would, in his view, be unacceptable. He also notes that the costs involved in reducing the standard of the A80 would be exorbitant (TRA 218).

2.262 It implies no criticism of CCC and their witnesses, but it is plain they were unable to obtain independent and expert assistance in presenting their case. The evidence was essentially of a lay nature, though Mr Cowling, Mr Freebairn, Dr Moffat and Mr Johnstone did have some relevant background and experience. Further, all the objectors' evidence was given by people who, for varying reasons, are opposed to the scheme, and who would be expected to minimise the impact of the KVR and maximise its perceived benefits. However, a decision on the scheme has to be reached by way of an objective balancing exercise, taking account of potentially competing interests and factors, all with a view to ascertaining what best serves the public interest and current policy. When carrying out this exercise, it was submitted that the carefully prepared, thoroughly researched, and independent professional evidence and assessment put before the inquiry by the TRA is entitled to considerable weight and respect.

2.263 Much of the argument for CCC is to the effect that the scheme is too small to meet the needs of the future, and that it is inevitable that another scheme will be required. This approach is firmly rooted in the 'predict and provide' philosophy. It ignores the current policy of Ministers, which is no longer driven by a perceived inevitable, or at least necessary link between economic development and unconstrained traffic growth. It pays no attention to the various initiatives which are being, and can in the future be taken, towards that goal. It also ignores the obvious truth that the critical factor is a road's efficiency, not its capacity. It glosses over the economic benefits which the scheme will provide. In any event, as mentioned earlier, the logic of CCC's case in this regard is not a KVR, but a larger on-line upgrade.

2.264 Another central thesis of CCC's case, especially as put to witnesses in cross-examination, is that the scheme ignores the interests of people, in favour of the interests of things. This does not bear examination. It assumes that people have no legitimate interest in preservation of the character and cultural heritage of the Kelvin Valley. It also disregards the considerable mitigation inherent in the scheme, which improves the environment for many people along the route.
CHAPTER 3

CASES FOR NON-STATUTORY OBJECTORS

Case for the Cumbernauld Community Councils’ Umbrella Group

Introduction

3.1 The Cumbernauld Community Councils’ Umbrella Group (the CCC) incorporates the following:

<table>
<thead>
<tr>
<th>Community Councils</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balloch/Eastfield</td>
<td>Carbrain Tenants Association</td>
</tr>
<tr>
<td>Carbrain &amp; Hillcrest</td>
<td>Cumbernauld Community Forum</td>
</tr>
<tr>
<td>Carrickstone</td>
<td>Joint Action Group</td>
</tr>
<tr>
<td>Castlecary *</td>
<td>Mr &amp; Mrs Sheret, Banknock **</td>
</tr>
<tr>
<td>Condorrat</td>
<td></td>
</tr>
<tr>
<td>Craigmakloch</td>
<td></td>
</tr>
<tr>
<td>Cumbernauld Village</td>
<td></td>
</tr>
<tr>
<td>Westfield</td>
<td></td>
</tr>
<tr>
<td>Westerwood</td>
<td></td>
</tr>
</tbody>
</table>

Notes: * Castlecary Community Council announced on 1 December 2005 that it was resigning from the CCC.
** Mr & Mrs Sheret’s statutory objection is dealt with in Chapter 4

3.2 The CCC agrees with the TRA that a motorway is required between Stepps and Haggs. It does not support a policy of either ‘do-nothing’ or ‘do-minimum’ on the route, nor does it object to the Orders relating to the proposed off-line section of the motorway between Stepps and Mollinsburn.

History of proposal

3.3 In July 1972 the then Secretary of State for Scotland announced that the A80 upgrade would be on a line to the north of the Cumbernauld Extension Area. The extension area was designed on the express understanding that when the A80 trunk road was replaced by a motorway (the M80), this would pass to the north of the extension area, and the existing route of the A80 would be downgraded to be little more than a local distributor road. In October 1975 the Cumbernauld Extension Area – Outline Plan (CG/BJ/12) was approved in principle by the former Scottish Economic Planning Department (CG/BJ/01). The approved plan showed a ‘Motorway Band of Interest’ within the Kelvin Valley to accommodate the M80.

3.4 From 1972 onwards, in 1979 (TRA 73) and in 1992 (CG/MO/01), studies and reports continued to recommend the Kelvin Valley as the preferred route, although no further formal
announcements were made and the route was not progressed to the stage of publication of line Orders. Nonetheless, between 1972 and 1997 the only announced route, and that by no less than the then Secretary of State, and the consistently recommended route by the consultants, was in the Kelvin Valley.

3.5 The Scottish Executive, as TRA, is the sole determinant of what trunk roads, including motorways, are to be built, and where and when that will be. It follows that incorporation of motorway routes into statutory structure plans and local plans can only have been under instruction from, and agreement with, the TRA. Over many years the KVR was incorporated into statutory development plans. These plans were used to give assurances to developers and house purchasers that the M80 would be located in the Kelvin Valley.

3.6 The CCC acknowledged that, by 1996, the importance attached to the impact of major road construction on the physical environment had increased. This is evidenced by the expansion in analysis and design procedures required for EIAs, and in the DMRB. Furthermore, by that time anti-road protesters were becoming vociferous and aggressive. These factors made retaining the Kelvin Valley as the preferred route, problematical. It appears that, while the Kelvin Valley still offered the better route in terms of ease of construction and operation, the impact of such a road on the physical environment of the Kelvin Valley was by then perceived as being increasingly a problem, perhaps especially for Ministers.

3.7 So, in the summer of 1996, the M80/M73 Stepps to Haggs Consultation Forum was held. Forty-two special interest groups took part. This was a unique event chaired by an independent facilitator, and was designed to allow participants to present their views and hear the views of others. The facilitator, Mr Drew Mackie, collated the submissions but had no brief to come to any conclusion (TRA 85). Considerable frustration has resulted from that event because submissions apparently could not be challenged. There were strong feelings among Cumbernauld representatives that not enough weight was attached to the importance of the motorway in promoting the economy of the whole of Scotland, and that the event had been hijacked by special interest groups. It was noted that few of these special interest groups were represented at this inquiry where their statements could be challenged.

3.8 That event prompted an announcement by Ministers on 7 February 1997 that an on-line upgrade of the existing road was the preferred route. The announcement coincided, within a few weeks, with the demise of the Cumbernauld Development Corporation which had consistently championed a route through the Kelvin Valley.

3.9 Babtie’s Stage 2 report, published in February 1997 (TRA 87) recommended the on-line route. That was the first time in its 25 year involvement with the M80 project that Babtie had moved from recommending the Kelvin Valley route to recommending the on-line route. The CCC has been unable to find out if that conversion occurred before, during or after the Ministers’ decision, nor has it discovered what deliberations took place, what paperwork was involved, or who was involved in advising the Ministers.

3.10 Babtie’s report confirmed that both routes were of comparable cost and offered an equally good financial return. Also both routes were considered to be feasible, although the on-line route would be more difficult to construct. Ministers and the TRA have consistently said that, in the final analysis, it was the inability to successfully mitigate the potentially adverse impacts associated with the KVR which led to the selection of the A80 Route as the
preferred option. That decision was confirmed in November 1999 in the report of the Strategic Roads Review. The accompanying decisions paper (TRA 11) announced that no further consideration was to be given to the KVR.

3.11 The decision that no further consideration was to be given to the KVR was, of course, passed to the relevant planning authorities as a Ministerial edict, and they had little choice but to accept it and to change their planning policies. Naturally a number of elected members were not happy, but their objections were quashed.

3.12 What is clear is that the people of Cumbernauld felt betrayed and angry at a reversal of a Ministerial assurance which had prevailed for more than 20 years. They wanted an opportunity to test and to challenge that reversal. They wanted a public inquiry into the decision to abandon the long-standing announcement that the M80 would be located in the Kelvin Valley. They could have had one. Section 139 of the Roads (Scotland) Act 1984 (TRA 7) gives the Secretary of State, now the Scottish Minister for Transport, power to call such an inquiry. There is, though, no obligation on the Minister to do so. The TRA’s position is that it is not normal procedure to have a public inquiry before line orders are published, and that since provision already exists for objections to be heard in one forum, namely this public local inquiry, there is no justification to introduce another. However the CCC submitted that this is not a normal situation. A long-standing commitment, announced by the then Secretary of State, enshrined in development plans and acted on in property and infrastructure development for more than 20 years, had been abandoned.

3.13 Everyone was aware that this inquiry was limited to making recommendations relating to the published Orders. Attempts to create an opportunity to challenge the route decision went to the floor of the Scottish Parliament, where answers were given that were interpreted as assurances that this inquiry would fully and fairly examine all route options including that in the Kelvin Valley. The CCC is grateful that the Scottish Executive and the TRA did eventually accede to its pressure, and that it was able to present evidence challenging the route decision. However it was equally aware that it might at times have tried to trespass outside the inquiry’s terms of reference, and that it was simply being given its ‘day in court’. The so-called Forum of the summer of 1996, itself hailed as an unusual and additional consultation event, would have been much more satisfactory if it had been a properly conducted public inquiry with evidence, cross-examination and a reporter’s recommendation.

3.14 That is all history now, but it may help to explain the frustration that was expressed from time to time at the inquiry, especially when there was no one present who was able to answer for the various Ministers and their decisions. However the CCC has proceeded on the understanding that it is within the power of the inquiry to recommend that not all of the published line Orders be approved at this time on the grounds that there is an alternative route for the on-line section that is worthy of further investigation.

**Comparison of the 2 routes**

3.15 In the view of the CCC, there has been, and still is, an alternative route in the Kelvin Valley which is better than the proposed on-line section of the proposed motorway in terms of the function, location and operation of a national motorway. However the TRA was not prepared to include that in the agreed joint statement between the Scottish Executive and the CCC (TRA 212).
3.16 The DMRB defines the primary purpose of the trunk road network as ‘to provide for the safe and expeditious movement of long distance through traffic’. Motorways, being the highest category of trunk roads, are expected to relieve other roads of such long distance through traffic, and should not be located where they would attract short distance local traffic. A motorway which was constructed by upgrading the existing A80 would be used by short distance local traffic. By contrast, a motorway in the Kelvin Valley would attract more long distance through traffic from the A803 through Kilsyth and Banknock. A route in the Kelvin Valley would therefore be better than the on-line upgrade in terms of the function of a national motorway.

3.17 While both routes would bypass Moodiesburn, Chryston and Muirhead, the KVR would also bypass the whole designated area of Cumbernauld. Cumbernauld New Town had received international recognition for its planning, which included a clearly defined hierarchy of roads designed to control and to accommodate motor vehicles. Two of the TRA’s witnesses accepted that ideally motorways should bypass built up areas, but they pointed out that there is no prohibition on building motorways through such areas. However neither could instance any town in Scotland, other than metropolitan cities, that has had a motorway located through its built up area. Other things being equal, a route in the Kelvin Valley would be better than the on-line upgrade in terms of the location of a national motorway.

3.18 The proposed on-line upgrade incorporates no less than 81 departures from the design standards recommended in the DMRB. A particular concern is the substandard radius associated with locating the motorway through the Castlecary viaduct. The radius there would be half the recommended standard (510m instead of 1020m), so that speed restrictions might be required. It was conceded, though, that the proposed horizontal radius is the same as presently exists, and that stopping sight distances would be improved marginally. The proposals for the section between Low Wood and Hagg have had climbing and weaving lanes added to assist operations where motorway standards of gradient could not be provided. It has also been established that the hard shoulders on the upgrade would not be continuous through existing bridges. That is a safety concern, although it was conceded that discontinuous hard shoulders exist on various parts of the national motorway network.

3.19 It is obvious, and has been confirmed by previous design work, that a motorway in the generally open ground of the Kelvin Valley would not have the same locational design constraints as the on-line upgrade of the existing road. A route in the Kelvin Valley could be better than the on-line upgrade in terms of the operation of a national motorway.

3.20 In Babtie’s 1997 report (TRA 87) both routes were stated to be comparable in terms of cost and offered an equally good financial return while meeting the scheme objectives. However the Ministers’ decision to reduce lane provision and lower operating design standards would allow the on-line upgrade to retain existing structures and to be built with less land take, so that there would be more of a cost saving for the on-line upgrade than for the all new Kelvin Valley route.

Traffic and transportation issues

3.21 It is accepted that in March 2003 the then Minister for Transport stated in the Scottish Parliament that it was the aim of the Scottish Executive to stabilise road traffic levels in Scotland at 2001 levels by 2021. However this is an aspiration, not a guaranteed policy. It emerged that no-one at the inquiry knew of any other country in the world, including England
and Wales, that has such a draconian aspiration. It also emerged that the measures proposed
to encourage that aspiration are not progressing very well, and that traffic in Scotland and on
the A80 is continuing to grow in line with national trends.

3.22 Nevertheless, with whatever scepticism, that longer term traffic restraint aspiration
has had to be accepted in the design of the M80 between Stepps and Haggs. The TRA’s
evidence is that, in line with Scottish Ministers’ aspirations of reducing traffic volumes to
2001 levels by 2021, the scheme is not intended to meet unrestrained levels of traffic beyond
the year of opening, namely 2010. It is clear therefore that the proposed motorway has been
designed to accommodate traffic demand at year 2010 and not beyond.

3.23 Traffic demand at 2010 for the on-line sections is predicted to be 123,000 vehicles per
day between Mollinsburn and Auchenkilns and 107,000 vehicles per day between
Auchenkilns and Haggs. The DMRB recommends, as upper limits for year of opening,
90,000 vehicles per day for a dual 4 lane motorway and 60,000 vehicles per day for a dual 3-
lane motorway. Even if these figures are overestimated, it follows that to accommodate
traffic in 2010, the on-line sections of the motorway would require to be not less than dual 4-
lane between Mollinsburn and Auchenkilns and dual 3-lane between Auchenkilns and Haggs.
Babtie’s recommended lane provision was for just that: dual 4-lane between Mollinsburn and
Auchenkilns and dual 3-lane, with provision for widening to dual 4-lane, between
Auchenkilns and Haggs.

3.24 However, in the Ministerial decisions (TRA 14) that followed the completion of the
CSTCS, the lane provision for the on-line upgrade was reduced to: widening between
Mollinsburn and Auchenkilns to dual 3-lane; and upgrading the existing dual 2-lane all-
purpose road between Auchenkilns and Haggs to still dual 2-lane, but a motorway with some
hard shoulders and crawler lanes.

3.25 It has to be a matter of fact then that the on-line section of the M80 is no longer
proposed to be upgraded to accommodate year of opening traffic demand, and that either
congestion at year of opening is highly probable or else the Ministers’ means of reducing
traffic demand will have to be in place by then and working.

3.26 In anticipation of the probable congestion on the motorway, the proposals recognise
that measures such as ramp metering (ie traffic lights on access slip roads) and banning single
occupancy cars might require to be introduced as soon as, or shortly after, the opening of the
motorway. That would be bound to result in traffic seeking alternative routes along roads
that the motorway was supposed to relieve. It would also mean that the detrimental effects to
the national economy caused by present day congestion on the A80 would be replicated
shortly after the opening of this section of the M80.

3.27 Babtie’s lane recommendations were made in the full knowledge of the Ministers’
aspirations to suppress traffic growth. However suppressing traffic growth will require
nationwide measures. It might therefore be the case that the reason for the Ministers’
rejection of Babtie’s recommended lane configuration was to make it easier and cheaper to
squeeze the motorway through the existing narrow Cumbernauld corridor.

3.28 The CCC agrees that there should be restraint on traffic access to sensitive areas, such
as town centres and living areas, where ‘people activities’ should have priority. Cumbernauld is an exemplar of how to do that. However deliberately creating congestion on
motorways, whose primary purpose is to take long distance through traffic away from sensitive areas, and which are the life blood of the economy of the country, has to be wrong.

3.29 There has been, and still is, a strong opinion in Scotland that, in the national interest, the M80 should nowhere be less than dual 3-lane. Such a view has recently been expressed by both the RAC Foundation (CG/MO/21) and the AA Motoring Trust (CG/MO/22). As recently as 2004 the then Scottish Minister for Transport, Nicol Stephen, was quoted as confirming that upgrading the A80 required the equivalent of a 3-lane motorway in each direction to ease congestion (CG/MO/17).

3.30 The CCC submitted that the lane configuration recommended by the consultants would be necessary to accommodate year of opening traffic demand, would be necessary to provide for demand management in the future, and would be compatible with the aspiration to stabilise traffic growth. The CCC supports the recommendation that the M80 should be not less than dual 4-lane between Mollinsburn and Auchenkilns and not less than dual 3-lane between Auchenkilns and Haggs, whether it was built on-line or in the Kelvin Valley.

3.31 Parties expressed different opinions about the possible role and configuration of the existing A80 in the event of the M80 being constructed in the Kelvin Valley. The TRA envisaged it being available as an unrestricted all-purpose dual carriageway, while NLC’s intention would apparently be to keep it open as a dual carriageway but to keep motorway traffic off it (TRA 218 and GM/08) By contrast, the former Cumbernauld Development Corporation intended that it would be downgraded to a single carriageway local access road (CG/BJ/12 and CG/BJ/16).

3.32 One of the objectives in locating the motorway to the north of the Extension Area was that it could help to unify the currently divided north and south areas of the town with facilities developed and readily accessible on both sides of the valley. It is astonishing that the traffic model appears never to have been run with the de-trunked A80 downgraded as in the approved Extension Area plan. To its credit, the development corporation, back in the early 1970s, prepared its plan on the principle that no long distance through traffic should use the town roads. The test network associated with the M80 in the Kelvin Valley should have recognised that.

3.33 The TRA’s evidence was that if the KVR was built, the residual flows on the existing A80 in 2010 might range from 40,000 to 60,000 vehicles per day between Mollinsburn and Auchenkilns and between 25,000 and 35,000 vehicles per day between Auchenkilns and Haggs, the lower figures representing traffic to and from the New Town and the higher figures including trunk road traffic. These figures were founded upon by the TRA’s environmental witnesses, who concluded that there would, as a consequence, be a loss of otherwise possible environmental benefit to the 6600 or thereby residents living within 300m of the road (see paragraph 3.41 below).

3.34 However the approved Extension Area plan demonstrates clearly that the location of the M80 to the north of the New Town would be accompanied by a significant downgrading of the function of the existing A80 even in parts reducing it to a local single lane access road within a new linear park. It should also be noted that the radial access roads and distributor roads in Cumbernauld are capable of accommodating, comfortably, 2-way daily traffic flows in and out of the town in excess of 50,000 vehicles per day without using the existing A80 as a through road in the town.
3.35 A letter from NLC’s Director of Planning & Environment (TRA 218) was lodged late in the inquiry and indicated that the existing A80 would remain as an open dual carriageway with perhaps 20,000 to 40,000 vehicles per day using it. However in an exchange of correspondence with Councillor Murray the planning officer concurred that the council would be likely to select a system of measures to ensure that all through motorway traffic that had no direct business with Cumbernauld stayed on the motorway (GM/08).

3.36 The TRA argued that building the motorway in the Kelvin Valley would be contrary to the Executive’s policy to restrain traffic growth because, in combination with the reinstated and available existing A80, that would provide too much traffic capacity in the general corridor. That reasoning must clearly apply to the whole route between Stepps and Haggs, and not just to the section between Mollinsburn and Haggs. On that reasoning the motorway should be located on-line all the way. Alternatively, measures would require to be introduced along the whole length of the de-trunked A80 to ensure that through trunk road traffic could not, in normal circumstances, use any part of the existing road as extra capacity.

3.37 Opinions vary at this stage as to how that might be done. NLC appears to favour reducing the traffic capacity by introducing bus lanes, dedicated cycle paths, pedestrian crossings and the like. The former Cumbernauld Development Corporation favoured reducing the road to a single lane local access road. Councillor Murray suggested using traffic lights. The TRA’s position appears to be contradictory. In policy terms it appears to claim that an off-line route would not be acceptable if the existing road remained available to through traffic, but in traffic assignments and environmental assessments it assumes that the road would remain open to trunk road traffic. Neither NLC nor the TRA appears to have thought this matter through comprehensively. Only the former development corporation appears to have thought the matter through, prepared an outline plan which addressed all of these issues, and had it approved.

3.38 Indeed, with the deliberately restricted capacity on the motorway, all parallel roads, including the A803 through Kilsyth and other local roads in Cumbernauld and elsewhere as well as the existing A80, would require measures to protect them from overspill motorway traffic. This would be firstly, so as not to provide additional corridor capacity and thus conflict with the Executive’s restraint policy, and secondly, to protect the towns and villages in the corridor from the environmental impact of overspill motorway traffic.

3.39 The proposed improvements to the A80 would result in it being somewhat better able to cope with accidents. However some types of incident, for example a jack-knifed lorry, could block the whole road. There would be no satisfactory alternative parallel route in the event of such an incident on the proposed motorway near the Castlecary viaduct. Wyndford Road is substandard.

3.40 It is beyond the scope of this inquiry to recommend that the preferred route for the M80 should revert to the Kelvin Valley. It is therefore inevitable that, if approval of the line Orders for the on-line section was not recommended at this time, and if that recommendation was accepted by Ministers, then there would be a delay in the opening of at least the on-line section of the motorway. With the upgrading of the Auchenkilns junction, such a delay would be acceptable, since this junction was the major restraint to traffic on both the A80 and the A73. The Auchenkilns junction improvement was, according to the TRA, justified in operational and cost-benefit terms irrespective of whether the motorway was built on-line or in the Kelvin Valley.
3.41 The TRA set specific objectives against which the scheme for the M80 between Stepps and Haggs was to be assessed: environment, safety, economy, integration and accessibility. With respect to the first of these, there are 3357 addresses within 300m of the proposed on-line upgrade compared with 58 addresses located within 300m of the KVR. With an assumed occupancy of about 2 persons at each address, there would be some 6600 people living within 300m of the on-line route and perhaps 120 people within 300m of the KVR. It has to be obvious that the KVR would offer the possibility to lessen the traffic impact on very many more people than would be adversely affected, especially if the existing A80 was downgraded.

3.42 In terms of safety, Babtie’s recommendation for provision of a dual 4-lane road between Mollinsburn and Auchenkilns and at least a dual 3-lane road between Auchenkilns and Haggs, would be safer than the Ministers’ decision for dual 3-lane and dual 2-lane carriageways. Furthermore, a motorway in the Kelvin Valley could be built to higher, and therefore safer, standards of design than is proposed for the on-line upgrade.

3.43 ‘Economy’ is defined as reducing delays and improving travel times. It is clear that here again the Babtie recommendation for lane provision must be better than that proposed by the Ministers, and that the KVR could accommodate that provision more readily than the on-line route.

3.44 In terms of promotion of the local economy and accessibility, the KVR would provide better accessibility and do more to promote development in the Kilsyth/Banknock corridor and would equally serve the Cumbernauld corridor. Finally, both routes would integrate equally well with the Central Scotland motorway network.

3.45 In summary, then, a route for the M80 motorway between Mollinsburn and Haggs through the Kelvin Valley would be as good as, or significantly better than, an on-line upgrade of the existing road in meeting the specific scheme objectives.

Environmental impacts – the on-line route

3.46 Having agreed with the TRA that there were some 3357 addresses (or about 6600 people) within 300m of the proposed on-line upgrade, the CCC believed that this alone was a powerful testimony to the immediate impact on rather a lot of people of the on-line proposal. However, the TRA did not compare the environmental issues arising from a consideration of the relative merits of the 2 possible routes for the M80 on the basis of a level playing field. The TRA’s witnesses explained that impacts of the on-line route, described as ‘new’, were to be compared with the existing, baseline situation. Thus, in terms of a whole range of issues, including noise and vibration, air quality, ecology and landscape, those ‘new impacts’ were, according to the TRA, not really so terrible after all. The perception of what were euphemistically referred to as ‘receptors’, rather than ‘people’, would either only be ‘a little bit worse’, or could even be ‘a little bit better’, and in some cases ‘no different to the present’. In the view of the CCC, regulations which give legitimacy to the ‘baseline’ of the existing trunk route result only in the denigration of the citizens of Cumbernauld.

3.47 This then comes back to the expectation of the people of Cumbernauld referred to above. That expectation was simply that from the date of the approval in principle (14 October 1975) of the Cumbernauld Development Corporation’s outline plan for the Extension Area, the line of the new M80 motorway was clearly understood to lie to the north.
of that area. This only changed with the decision of the then Secretary of State, to go instead for an on-line upgrade of the existing A80 trunk road running through the town. This decision was taken on the eve of the wind-up of the development corporation in February 1997.

3.48 The CCC believes that the TRA’s specialist witnesses’ consideration of the environmental impacts of the on-line upgrade was flawed. It is based on the underlying assumption that in assessing the impact of such an urban motorway through Cumbernauld, the only basis for comparison was the already overburdened A80. The existing impacts are substantial, and to apply the Environmental Impact Assessment Regulations in such a simplistic manner has been to deny the affected people of Cumbernauld a proper consideration of their well-being.

3.49 Perhaps this is most true of noise. There have been considerable attempts, even within the often inadequate space available, to take steps to mitigate the effects of noise. However these are, at best, marginal. Also, beyond those immediately affected, and between Condorrat and Old Inns, there is a whole valley filled with ‘noise’ – a traffic generated continuous noise that would not be mitigated. The noise generated by traffic on the proposed road would remain unacceptable.

3.50 The evidence on air quality seems not to have taken account of the possibilities of temperature inversion in the A80 valley. The effect of this would be to not allow traffic pollution to escape from the A80 valley. By contrast, the more open geography of the Kelvin Valley would presumably make this less likely to happen.

3.51 There also seems to have been an attempt to imply that the new motorway would not really be passing through an urban area at all. One TRA witness referred to the on-line route passing various ‘settlements’, including Westfield, Dalshannon, Condorrat, Cumbernauld and Castlecary, and he also referred to the route’s ‘suburban character’. The clear implication was that if these places are only settlements, or at best suburbs, then a motorway passing nearby should hardly be cause for comment. However, Cumbernauld is a single place, a designed town, established 50 years ago under the 1946 New Towns Act. The proposed on-line route for the M80 would therefore pass through the heart of the town of Cumbernauld.

3.52 This unwitting denigration of Cumbernauld even extended to the TRA’s evidence on ecology. The wildlife surveys undertaken within the existing A80 corridor had omitted to record the admitted presence of roe deer, foxes and other species within the Seafar and other town woodlands. These contribute to the town’s astonishing richness and biodiversity.

3.53 Cumbernauld still needs this opportunity to become a unified place, one town, not divided for ever by one of the most major motor transport arteries in Scotland. The TRA’s priority was to present the impacts of the proposed on-line upgrade as being of relatively minor importance as compared to the existing A80 trunk road. However the comparison must be with the originally approved intention to see this downgraded to a town road, and the opportunity thus opened up for the town of Cumbernauld to begin to establish its unity as a single town, one place, both in community and landscape terms.

3.54 In her written submission (CG/WM/13) Dr Moffat stated that a number of studies from around the world have claimed ill effects to human health resulting from the construction of motorways too close to communities. She concluded that if the health of the
population was of primary concern, then motorways should be sited where there would be least impact on health. From her point of view, the proposed on-line upgrade would be unacceptable.

**Environmental impacts – the Kelvin Valley Route**

3.55 In recent years it has been intellectually respectable to denigrate the introduction of any new motorway into whatever might be able to be presented as an existing rural landscape. This is despite the fact that inter-urban motorways, by definition, have to pass through countryside. The CCC takes a different view. It starts from the premise that, properly designed, creatively landscaped, and occupying a sufficient space, a modern motorway need not be seen as something to be ashamed of, or to hide. As a society we are far from being ashamed of the motor cars we drive; neither should we then be ashamed of the roads upon which we travel.

3.56 The CCC is aware of the need within our society to see the development of sustainable means of public transport. However motorways are likely to remain a principal and visual feature of British life and landscapes into the foreseeable future, whatever improvements there might be in public transport and alternative technologies. Our national economy flows along our motorways. Our task as a society is to be able to make good design and a proper regard for the health and well-being of our people the cornerstones of the difficult decisions we have to make in the siting of modern roads.

3.57 The TRA’s witnesses tended to describe the Kelvin Valley in terms that have maximised its ‘rural’ nature, whilst ignoring its ‘industrial’ past and place within the history of ‘transportation’ between Scotland’s east and west coasts, and major population centres. Nor were they happy to accept that this is an environment already subject to noise intrusion and other reminders that it is a 21st century place.

3.58 According to the TRA, it was the inability to successfully mitigate the potentially adverse impacts associated with the KVR which led to the selection of the A80 Route as the preferred route. However that decision ignored the rather more complex environmental reality of the Kelvin Valley, and the possibilities created by the location of the M80 there to enhance it.

3.59 The Kelvin Valley is already a very man made environment, and one that shows all the marks of its role as one of the birth places of Scotland’s own industrial revolution. At different stages in its history it has been used for linen production, cotton weaving, quarrying, coal mining, coking and other types of manufacturing. Its value as an east/west route has long been recognised – by the Romans, and later for roads, the Forth and Clyde Canal, railways, electricity lines, and oil, gas and water pipelines. Constructing the M80 through the Kelvin Valley would continue this long tradition of using the valley for east/west transport links.

3.60 The CCC did not suggest that a new motorway built within the Kelvin Valley would be without impact. However, it argued that this is an environment in a far better position to receive those impacts than the New Town of Cumbernauld, and that the number of people directly affected would be a mere fraction of those affected in Cumbernauld by the preferred on-line route – some 160 as opposed to 6,600.
3.61 From the questioning of the TRA’s witnesses it became clear that the significance of some impacts could easily be exaggerated. For example, fewer people would be affected by poor air quality if the motorway was built though the Kelvin Valley. In parts of the valley, agriculture is already showing all the signs of ‘urban edge’ degraded practice. Nature has an amazing capacity for recovery, and most small creatures are able to adapt their habitats. None of the issues raised in respect of geology and groundwater are either unusual or unexpected in the building of a motorway through a landscape that has already been heavily worked in the past. Similarly, adequate measures could be taken to deal with flooding, climate change and water quality issues along a route though the Kelvin Valley. The evidence presented by the TRA did not indicate that there would be insuperable problems for the development of a route for the M80 within the Kelvin Valley.

3.62 The evidence on behalf of SNH was a spirited argument for the M80 to be built anywhere except within the Kelvin Valley. In reality, the issue is one of balance. Counsel for the TRA suggested that the CCC’s evidence had developed into a ‘people versus things’ argument. At its simplest, this might be true. However there is nonetheless much more to an argument for the motorway within the Kelvin Valley than a ‘put it anywhere other than near the people of Cumbernauld’ attitude. Constructing the motorway through the Kelvin Valley could regenerate and enhance the valley itself. This is not simply a matter of designed landscapes, but also of form and of structures. There are other places where this has happened in Scotland – for instance the Friarton Bridge carrying the M90 over the Tay to the east of Perth. If the CCC was successful in persuading Scottish Ministers that the M80 should lie within the Kelvin Valley, it was to be hoped that SNH would bring its skills to ensuring that this was achieved in the best possible manner for the natural environment.

3.63 Furthermore, where a major road passes through a host landscape, far more people will observe that landscape from a moving position on the road, than will ever see the road itself from ‘outside’. The KVR would provide an opportunity for the Kelvin Valley’s landscape, and potentially its heritage and tourism potential, to be opened up to a whole new audience.

3.64 With respect to HS’s evidence, again the issue is one of balance, and here the informed lay mind is perhaps of as much importance as that of the expert in the field. The suggestion that a crossing of the Antonine Wall at a point where it does not anyway actually exist, and was probably quarried in the past, would be a ‘national disaster’, amounts to a fairly extreme misuse of language. By any reasonable comparison measure it would most obviously not be a ‘national disaster’. In fact it is quite possible that with appropriate and skilful engineering, the site of the Wall at this point could remain completely untouched. The proposed ‘buffer zone’ is perhaps even more alarming. Whilst there is a need for the remains of a Roman frontier earth wall and ditch to be located within a reasonable landscape setting, the development of such a zone would have to take cognisance of the complex structures of our contemporary society. The landscape of the Kelvin Valley is not now as it was in the second century AD when the Roman legions confronted the Picts.

3.65 The greatest danger with regard to the Antonine Wall is that Scottish Ministers will soon have to submit to UNESCO a report detailing what they are already doing to protect the Wall. Their case for World Heritage Site designation would no doubt be strengthened if they were able to state that they had prevented a motorway being built across it.
3.66 The possibility of constructing a tunnel for the KVR under the Antonine Wall was first raised in public in the Stage 2 Review (TRA 144). To pay £25 million to preserve a 250m stretch of land, which may or may not contain a bit of wall foundation, would be extravagant. One effect of raising the issue of the tunnel was to make the KVR option seem less financially attractive than the on-line upgrade.

3.67 The CCC does not accept that the KVR would seriously harm the setting of the Antonine Wall. The Kelvin Valley is hardly one of Scotland’s finest unspoilt landscapes: it contains quarries, bings, towns, factories and roads. Moreover, the motorway would barely be visible from the tops of Barr Hill and Croy Hill.

3.68 A Kelvin Valley route and the Antonine Wall are far from being incompatible. For the Wall, and also for the Forth and Clyde Canal, a well designed motorway passing through the Kelvin Valley could be an asset. It would offer the opportunity for a wider Scotland to re-discover an early industrial revolution landscape which, the CCC suggested, should also be recognised as being of national importance. There are many locations in the UK where motorways pass over canals. The lesson of so many parts of Britain has been that the motorway network feeds tourism: it does not destroy it.

**CCC’s concluding comments**

3.69 A Kelvin Valley route for the M80 would afford the opportunity to both bring life to the valley, and to offer to the people of Cumbernauld a release from the growing blight of a major national traffic route through their town. The impacts of a motorway on the physical environment of the Kelvin Valley would be manageable. The M80 should have been constructed within the Kelvin Valley 30 years ago. Procrastination, expediency and a failure to support the people of Cumbernauld, have brought us to the present position. There is now no clear cut ‘right answer’ to this conundrum. The CCC however believes passionately that the balance lies with the siting of the road to the north of Cumbernauld and within the Kelvin Valley, not through the heart of the New Town of Cumbernauld, making an already intolerable situation worse.

**Case for Councillor Murray**

3.70 Councillor Murray has served as a councillor in Cumbernauld since 1967. For 13 of these years he was Civic Leader, 12 of them as Provost.

3.71 Every engineering report on the M80, including the CSTCS (TRA 14), which looked at ways of keeping commuter traffic off the M80, concluded that it should have a minimum of 3 lanes with hard shoulders. The current proposals are contrary to professional recommendations. They would include deliberately built in potential bottlenecks.

3.72 It is very important to ensure that restrictions on traffic are minimised on the strategically vital A80/M80 between its junctions with the M73 and the M876. The construction of the new Kincardine Bridge and uncertainties about the future of the Forth Road Bridge will result in more essential traffic on the A80/M80. The Scottish Executive does not appear to be fully aware of the severe damage being caused to the stagnating industrial economy of Scotland by its inadequate trunk road system. The proposals would restrict the future growth of the Scottish economy. This is a key issue.
3.73 Cumbernauld was planned as a homogeneous community. However it is split by the busy A80. It is proposed that about 40% of the town’s population will live to the north of the A80, where there are few community facilities. Almost no buses run between most of the area north of the A80 and the town centre in the evenings and at weekends. Walking and cycling is virtually impossible. From most parts of Cumbernauld there is no practical way of walking to the Eastfield Cemetery. The on-line proposals would permanently divide the town.

3.74 The proposals for the on-line upgrade are substandard in many ways. One disadvantage is that they do not include any reasonably acceptable relief road between Haggs and Castlecary. During major hold-ups on the A80, traffic going through Castlecary can prevent residents from driving out of their properties for hours on end.

3.75 There is strong support for an off-line route through the Kelvin Valley. The vast majority of the councillors on NLC’s Northern Area Committee have stated that they only reluctantly agreed to the proposed on-line upgrade after being informed that the choice was between an on-line M80 or no M80 (GM/09). The overwhelming majority of Cumbernauld residents are in favour of the KVR. Views in Kilsyth are divided.

3.76 Inter-urban motorways in the UK normally bypass towns. When proposed, they are usually bitterly opposed by local interests or the green lobby, or both. However, once built, they are almost always successful. The KVR would do minimal damage to the largely man-made Kelvin Valley.

3.77 HS has grossly overplayed the significance of the Antonine Wall. The Wall relates to only a short period in history, in contrast to the much more important Hadrian’s Wall. HS has failed to protect or even clearly mark many significant Roman and other historical sites in the area.

3.78 The KVR would have important transportation benefits, and it would assist the economy. Fine views would be opened up to the travelling public, and this would boost the tourist industry.

3.79 Downgrading the A80 after the construction of the KVR would allow the introduction of cycle lanes between Glasgow and Haggs. Traffic lights and pedestrian crossings could be provided, facilitating movement across the road.

**Case for Mrs Rosemary McKenna MP**

3.80 Mrs McKenna is the MP for Cumbernauld, Kilsyth and Kirkintilloch East. Prior to that she was a councillor in Cumbernauld and Kilsyth District Council, and during parts of that time she was Council Leader and Provost. She was also a member of the Board of Cumbernauld Development Corporation.

3.81 Cumbernauld is the only large town on any of the main routes between London and Inverness to have a major road going through it. The proposed on-line upgrade would continue to divide the town. By contrast, a bypass would provide a real opportunity to bring the 2 parts of the town together.
3.82 Economic development in the rural communities to the north of Cumbernauld is hampered by poor transport links. A bypass with links to these communities would help them share in the prosperity of the country, and it would improve access to the countryside. A new motorway would also help the local economy of Cumbernauld, where warehousing and distribution businesses are badly affected by current levels of congestion.

3.83 Across Britain, accidents and road works on motorways result in traffic seeking alternative routes though nearby towns and villages. Incidents on the A80 result in additional traffic on unsuitable roads, such as the extremely dangerous A803 from Kirkintilloch to Banknock. Building a bypass would allow the de-trunked A80 to act as a relief road. Two roads would be provided for not much more than the cost of one.

3.84 The Scottish Ministers’ policy to reduce traffic is unlikely to work. If the current proposal goes ahead, another road will have to be built in 10 years’ time to cope with the increased traffic.

Case for Mr Sam Mitchell

3.85 Mr Mitchell is Vice-Chairman of Condorrat Community Council and Secretary of the Cumbernauld Community Councils’ Joint Action Group. However his evidence was presented on his own and his wife’s behalf.

3.86 When Mr & Mrs Mitchell moved to Condorrat in 1995 they thought that their house was too close to the A80, but they were assured that the bypass would soon be built and the A80 would then be much quieter. The decision in 1997 to opt for an on-line upgrade amounts to a breach of promise to Cumbernauld, and possibly a breach of their human rights.

3.87 Scotland’s car ownership is well below the EU average, and it will inevitably increase. However the TRA appears to ignore that. The proposed on-line upgrade would be substandard. There are proposals to invest large sums in public transport, but that is unlikely to stop the growth in traffic. To avoid congestion, demand management will have to be introduced.

3.88 The KVR would be a much better alternative. Far fewer residents would be affected by its construction or operation. It is doubtful if there are any buried remains where it would cross the ‘non-existent’ Antonine Wall. A motorway bridge over the canal would provide a shelter and could become a pleasant feature.

3.89 In January 2003 the Joint Action Group submitted a petition about the M80 to the Scottish Parliament’s Public Petitions Committee. Correspondence relating to that is contained in document SM/1.

Case for Mr Jim McKenna

3.90 Mr McKenna is a resident of Cumbernauld and a former councillor who represented a Cumbernauld ward on North Lanarkshire Council. He was involved with the ‘Central Coordinating Committee’, which evolved into the CCC.
3.91 The proposed on-line upgrade would not represent value for money. The Scottish Executive’s aspiration about traffic reduction is unlikely to be achieved. A bypass will eventually have to be built, and this option should be re-examined.

Written submissions

3.92 About 600 letters were received from non-statutory objectors, some of whom also presented oral evidence to the inquiry, or who were represented by others who did. Most of these letters are contained in TRA 32. The representatives of 2 organisations, Castlecary Community Council and Castlecary Community Residents Association, lodged precognitions in opposition to the proposals, but neither spoke at the inquiry, and I have therefore treated these precognitions as written submissions. About 70 letters were received from supporters (TRA 34), and a further 20 or so additional representations were received (TRA 33).

3.93 Most of the issues raised in the letters of objectors were covered in oral evidence. The objections, which were summarised by Jacobs Babtie in TRA 31, include the following matters:

- proposed route contrary to previous plans and previous understanding
- the availability of better alternative routes, notably the KVR
- the limited capacity of the proposed road, and the likelihood that it would not prevent congestion
- substandard design, with concerns about safety, notably at Castlecary viaduct, where 3 lanes reduce to 2 lanes, and where hard shoulders are discontinuous
- the cost of the proposed scheme, and its value for money
- the absence of a suitable relief road
- difficult access for emergency vehicles
- closure of Condorrat slip roads
- impacts during construction, notably:-
  - chaos for a long period
  - noise and vibration, and night time working
  - air pollution
  - congestion, and consequent traffic diversion to side roads
  - increased risk of accidents with on-line construction
- impacts on completion, notably:-
  - noise and vibration
  - air pollution
  - damage to health
  - traffic diversion to side roads, and consequent dangers to residents
  - visual impacts, including noise barriers, and at Castlecary
  - loss of trees, including some in Seafar Forest
  - risk of flooding
- severance of Cumbernauld
- damage to wider economy, local businesses and tourism
- effects on bus services
- demolition of several properties
- reduced property values
- lack of consultation
Cala Homes/Lynch Developments

3.94 In 1997 Cala Homes and Lynch Developments commissioned Warren Consultants to promote a motorway service area (MSA) at Hornshill junction. In objecting to the draft Orders they wanted to ensure that there was nothing in the Orders that would prejudice the viability of the proposed MSA, or its prospects of gaining planning permission. They also wished to reach agreement with the TRA on any amendments to the design of the junction that might be necessary. To that end, Dougall Baillie Associates submitted proposals to Jacobs Babtie.

3.95 An MSA in the Robroyston-Stepps Corridor is a long-standing structure plan proposal, and the proposal was discussed at the inquiry into the North Lanarkshire Council Finalised Northern Corridor Local Plan. Hornshill is the only realistic location for an MSA on the M80 between Robroyston and Mollinsburn. It follows that the Hornshill junction should be designed to accommodate the proposal.
CHAPTER 4

CASES FOR STATUTORY OBJECTORS,
AND TRUNK ROADS AUTHORITY’S RESPONSES TO SITE-SPECIFIC MATTERS

Introduction

4.1 The total area of land included in the 3 draft CPOs is about 1,670,000m². Seventy separate landowners are involved. There are a further 156 plots of land for which the TRA could not determine ownership. These generally consist of sections of existing roads and adjacent disused ground.

4.2 Prior to publication of the draft CPOs (TRA 18, 29 and 30), the TRA’s approach was to acquire all land necessary to permit construction of the scheme. As a consequence, areas of land were included within the draft CPOs for the purpose of providing sufficient land for public utility diversions and for drainage. However, after subsequent discussions with the affected landowners, the TRA decided that utility diversions should be undertaken through wayleaves negotiated by utility companies, and that land required for drainage works should be included as permanent servitude plots.

4.3 In addition, as a result of detailed discussions with landowners, further amendments were proposed to the draft CPOs. The details at that time were set out in TRA 206. That document has now been superseded by TRA 215.

4.4 The outstanding statutory objections are from the following parties:

- Mr A MacBeath, Glenside Cottage, Castlecary
- Stewart Homes, Atrium House, Callendar Business Park, Falkirk – land at Castlecary
- Mrs Buchanan, Woodend Cottage, Castlecary
- Mr & Mrs Neilson, 6A North Road; Mr & Mrs Mooney, 6 North Road; and Mr & Mrs Dursin, 4 North Road, Condorrat
- Mr & Mrs Gregg, North Road Cottage, North Road, Condorrat
- Mr & Mrs Merrick, Inglenek, No 3 Eastfield Holdings, Cumbernauld
- Mr & Mrs Cassidy, Seafar, Eastfield, Cumbernauld
- Mr & Mrs Harkin, Onich Cottage, Eastfield, Cumbernauld
- Mr A Brown, South Garngrew Farm, Castlecary
- Mr & Mrs Sheret, 57 Glenview Avenue, Banknock, Bonnybridge
- Mrs Khan, Greenlea Cottage, Lindsaybeg Road, Chryston
- Mr A Henderson, Kettlehill Farm, Baldernock, Milngavie – land at Davidston Mains and Cleddans Farms, Moodiesburn
- Mr M O'Donnell, Woodlands, Burnside Road, High Burnside, Glasgow – land at Braeside Farm, Moodiesburn
- Mr & Mrs Stewart, Mollinhillhead Farm, Mollinsburn
- Mr G Jackson, Badenheath Park Farm, Mollinsburn
- Mr P Weir & Son, Castlecary Mill Farm, Banknock, Bonnybridge
4.5 Their objections and the TRA’s response on site-specific matters are summarised below in paragraphs 4.8-4.236. The TRA’s position on other, general, matters raised by objectors is summarised in chapter 2.

4.6 Mrs J Main is the owner of Conair Cottage, Kirk Place, Condorrat. An area of Mrs Main’s property was included within the draft M80/M73 Special Roads (Moodiesburn Bypass) CPO (Plots 1515 and 1516) (Map No RYC/NL3/C/10, Sheet 7 of 8, in TRA 30). The land was included in the draft CPO for the installation of underground Scottish Power cables. Mrs Main (agent: McCrae & McCrae) objected to the draft CPO. Following the publication of the draft CPO, Scottish Power confirmed that the diversionary works could be carried out utilising a wayleave. Accordingly the TRA now proposes to delete Plots 1515 and 1516 from the CPO at Made Order stage. The TRA no longer regards Mrs Main as a statutory objector to the draft CPO.

4.7 The statutory objections by the following parties have been withdrawn:

- Mrs H Cameron (by letter dated 25 August 2005)
- Mr I Findlay (31 August 2005)
- Scottish Water (8 September 2005)
- Mr T Antoniou (3 October 2005)
- Shell UK Ltd / Shell Ventures UK Ltd (5 October 2005)
- T-Mobile (10 October 2005)
- Travel Lodge / Little Chef (20 October 2005)

**Mr MacBeath, Glenside Cottage, Castlecary**
*(Agent: McCrae & McCrae)*

4.8 Mr MacBeath was the only statutory objector to present oral evidence to the inquiry. His house, Glenside Cottage, lies at the north end of Castlecary, on the east side of Castlecary Road, the B816. The Castlecary viaduct lies some 100m to the north. The rear garden boundary is close to the A80.

4.9 An area of Mr MacBeath’s garden of approximately 42m² is included within the draft M80 Special Road (Auchenkilns to Haggs) CPO (Plot 802) (Map No RYC/NL3/B/10, Sheet 5 of 5, in TRA 29).

**The objections**

4.10 Mr MacBeath and his family moved to Glenside Cottage 18 years ago, since when he has renovated the house and garden. He has planted numerous conifers on the strip of land at the rear of his property, next to the A80. Some of this land is in his ownership; and the remainder is owned by Stewart Homes. Many of the trees are now about 10m tall.

4.11 In 1996 the TRA told him that one option being considered would have required the demolition of his house. The present proposal would involve the compulsory purchase of part of his garden.

4.12 Mr MacBeath’s main objection is in respect of the route of the proposed upgrade. In his opinion, Cumbernauld should be bypassed. He supported much of the case presented by
the CCC. However, if the upgrade proceeded on-line, the road should be moved to the south-east (further into Castlecary Glen).

4.13 Mr MacBeath stated that the existing trees provide an effective noise, visual and air pollution screen, and that as few as possible should be removed. He was content to accept the TRA’s assurance that it would do its best to limit tree loss.

4.14 The proposed 2m high noise barrier would not provide sufficient mitigation. A 3m barrier should be provided. Mr MacBeath stated that he was being treated unfairly in this matter. Other properties which are predicted to suffer less traffic noise than his own were being offered a 3m barrier.

4.15 The loss of land would reduce the value of the property and would affect any future expansion plans.

**TRA response**

4.16 Discussions regarding the upgrading of the A80 have been taking place with Mr MacBeath and his family over a number of years. An initial meeting was held with representatives of the Scottish Executive and Babtie Group (now Jacobs Babtie) regarding the current scheme proposals on 10 July 2003. During this meeting it was identified that a portion of what was believed to be Mr MacBeath’s garden adjacent to the A80 would need to be acquired to accommodate the new hard shoulder and verge of the road, as well as any mitigation measures, such as noise attenuation, that might be required. The possible extent of the land required was provided to Mr MacBeath by letter dated 23 October 2003. The letter also noted that the design was at an early stage and might be subject to minor changes, and that the likely environmental mitigation could not be confirmed until the full environmental assessment had been completed.

4.17 When the draft CPOs were being prepared and title searches undertaken it was identified that Mr MacBeath’s garden was of a smaller extent than previously understood (Plan No BTI0005242/PH2/LO/033, in TRA 35). Mr MacBeath was informed of this change in November 2004, prior to publication of the draft Orders. Plot 802 would be required for grouting works beneath the surface of the ground. It would not be necessary to physically enter on to Mr MacBeath’s land. It is intended that on completion of the works the land would be returned to Mr MacBeath.

4.18 The alignment of the proposed scheme would be up to 15m south-east of the existing A80 at Castlecary, moving it further away from the majority of properties in the village. The alignment of the road in this area is constrained by the presence of the Castlecary viaduct. To move the alignment further south-east at this location would result in a significant impact on the environmentally sensitive Castlecary Glen and the Red Burn, and would necessitate substantial earthworks in the area, with the associated disruption to adjacent residents. Based on these constraints, it was not considered viable to align the road further east at this location. At present the eastbound running lane of the A80 is approximately 6m from the closest point of Mr MacBeath’s garden, and 27m from the closest point of Mr MacBeath’s house. On completion of the proposed scheme these distances would increase to approximately 15m and 36m, respectively.
4.19 At the meeting with Mr MacBeath and his land agent on 24 May 2005, Mr MacBeath reiterated his concerns regarding the proximity of the motorway to his property and requested that a safety barrier be erected along the inside edge of the carriageway from the end of the noise bund to the south-west of Glenside Cottage and past his property. The TRA agreed to undertake this work as part of the scheme, and this would be stipulated in the contract documents. A letter and accompanying plan were sent to Mr MacBeath’s agents on 27 July 2005 informing them of these proposals (TRA 35). No response was received.

4.20 Land Registry title searches were completed by Scottish Executive solicitors prior to the publication of the draft CPO. No trees would be removed from within land owned by Mr MacBeath. However it might be necessary to remove some of the trees from the area between the boundary of land owned by Mr MacBeath and the existing A80. It is not possible at this stage to specify exactly which trees might need to be removed. The clearance of trees would however be kept to the absolute minimum required, and the contractor would need the approval of the TRA site representative to remove any of the trees in this area.

4.21 Further to the meeting on 24 May 2005, the TRA agreed to erect a temporary fence to delineate the extent of land available to the contractor during the works and to prevent any unnecessary tree clearance. On completion, the fence would be removed and similar species of trees would be planted between the proposed noise barrier and the boundary with Mr MacBeath’s land.

4.22 The proposed noise barrier located towards the rear of the property would effectively act as the permanent highway boundary fence at this location. The proposed 2m high noise barrier would be the same height as the noise bund to be provided for properties immediately adjacent to Mr MacBeath’s. A barrier, rather than a bund, has been proposed at this location to minimise the area of land required and associated removal of trees, as requested by Mr MacBeath.

4.23 The predicted noise level in 2025 at Glenside Cottage, with the scheme in operation, with mitigation, would be 70.3dB(A), which is some 7.9dB(A) less than the current level of noise at the property (TRA 164). This would be a very perceptible decrease.

4.24 The provision of a 3m high noise barrier as requested by Mr MacBeath would provide additional noise reduction. However the aim of mitigation is to avoid an increase in noise with the scheme in place. The proposed 2m high barrier would provide a substantial benefit in terms of noise reduction, and it is not proposed to increase the height of the barrier. Where 3m high barriers have been proposed at other locations along the route, the noise environment and other circumstances are different. Mr MacBeath is not being treated unfairly.

4.25 Dr McKell was questioned about noise levels and hearing impairment. She stated that a DEFRA study had found no dose response relationship other than those laid down in Health and Safety at Work Regulations. These identify a health risk if a person is exposed to 90dB(A) for 8 hours per day. Exposure to 70dB(A) would be unlikely to result in hearing damage.

4.26 There is no strong evidence that evergreen trees provide much mitigation of dust and pollution from the road. This is especially so for gaseous pollutants like NO\textsubscript{2} which pass through the trees. In practice there should be no need to mitigate the air pollutants from the
road. Concentrations are predicted to fall in future years, and the scheme would give rise to small improvements in concentrations at this property.

4.27 As the area of land included in the draft CPO would be returned to Mr MacBeath, it is not considered that the proposed scheme would have an impact on any potential future plans for extending the property. With regard to the potential impact on the future value of the property, the Valuation Office would make a full assessment of any compensation due.

Stewart Homes  
(Agent: McCrae & McCrae)

4.28 Stewart Homes are the owners of an area of disused scrubland between the existing A80 and Castlecary Road, the B816, south of the Castlecary viaduct.

4.29 Stewart Homes’ property at this location extends to approximately 2914m$^2$, and has been included within the draft M80 Special Road (Auchenkilns to Haggs) CPO (Plots 801 and 803) (Map No RYC/NL3/B/10, Sheet 5 of 5, in TRA 29).

The objections

4.30 Stewart Homes state that the KVR would be a better route. It would involve less disruption to residents and to road users. If the upgrade had to be on-line, then land to the south-east of the A80 could be built on rather than land on the north side where houses are located.

TRA response

4.31 The land is required for grouting works beneath the surface of the ground, for the construction of noise attenuation bunds for the proposed M80, and for associated environmental mitigation measures.

4.32 The alignment would be up to 15m south-east of the existing A80 at Castlecary, moving it further away from properties in the village and providing benefits to the residents from reduced traffic noise and visual impacts. The alignment in this area is constrained by the presence of the Castlecary viaduct. To move the alignment further south-east than is proposed would result in a significant impact on the environmentally sensitive Castlecary Glen and the Red Burn. This would necessitate substantial earthworks in the area with the associated disruption to residents. Based on these constraints it is not considered viable to move the route any further south at this location.

4.33 Stewart Homes verbally confirmed to Jacobs Babtie on 21 October 2005 that they would be withdrawing their objection.
Mrs Buchanan (nee Ms F Crozier), Woodend Cottage, Castlecary
(Agent: McCrae & McCrae)

4.34 Mrs Buchanan owns Woodend Cottage, which lies on the west side of Castlecary Road, the B816, adjacent to the Castlecary junction, a short distance to the north of the Castlecary viaduct. An access from the B816 serves both Woodend Cottage and another house, Woodneuk Cottage.

4.35 An area of Mrs Buchanan’s property extending to approximately 1362m$^2$ has been included within the draft M80 Special Road (Auchenkilns to Haggs) CPO (Plots 825 and 826 (occupier only)) (Map No RYC/NL3/B/10, Sheet 5 of 5, in TRA 29).

The objections

4.36 Mrs Buchanan and her family consider that the KVR would be better than the proposed on-line upgrade. It would have benefits for traffic, local businesses and residents. Increased traffic on the A80/M80 could affect the viaduct’s foundations.

4.37 Plots 825 and 826 are not required for the M80. The plots would be acquired for the purpose of drainage works related to the scheme. Scottish Water has sufficient powers to lay the water and drainage pipes without the requirement for a CPO.

4.38 Laying the proposed pipes would require the excavation and temporary blocking of the access. It would be more efficient for the drainage pipes to outfall to the Bonny Water than to the Red Burn.

4.39 The acquisition of the access to Woodend Cottage would give Mr & Mrs Buchanan a problem accessing their property without the consent of the Scottish Executive. The remaining land within the CPO plots comprises areas with grass and trees. The trees were planted to provide privacy and reduce traffic noise.

4.40 Up to 3 further dwellings could be erected on Mrs Buchanan’s land. The wayleave for the pipes would reduce the property’s development potential and value.

4.41 The property would experience a significant increase in noise pollution, and possibly air pollution, during construction. Moving the M80 to the west, closer to Mrs Buchanan’s property would increase noise at the property.

TRA response

4.42 The land is required for the construction of drainage and attenuation pipes associated with the proposed motorway.

4.43 Plots 825 and 826 are required specifically for drainage works for the proposed scheme, not for the diversion of Scottish Water apparatus. It is proposed to amend these plots to permanent servitude plots at Made Order stage (TRA 215). This would provide the Scottish Executive access to construct and maintain the drainage works (Plan No BTI0005242/PH2/WD/65, in TRA 35).
4.44 To allow the construction of the proposed drainage and attenuation pipes it would be necessary to remove a number of trees. The clearance of trees would be kept to a minimum and would require the approval of the Scottish Executive site representative. Access to the property would be maintained during the works, and the access track would be reinstated to its previous standard. The Valuation Office would assess the level of compensation due, taking into account the value of the property and the value of related effects, including the impact on development proposals, where appropriate planning certificates are in place.

4.45 The vertical alignment of the scheme would require an outfall to be located between Seabegs overbridge and the canal crossing. It would not be possible to drain the scheme across the canal to the Bonny Water at this location without significantly raising the alignment of the carriageway, resulting in the requirement for additional land and the reconstruction of both the canal crossing and Seabegs overbridge.

4.46 Impacts on noise levels and air pollution during construction would be temporary, might vary during the construction period, and would ultimately depend on the contractor’s chosen methods of construction.

4.47 Only minor changes to the alignment of the A80 would be made in the vicinity of Castlecary junction. The scheme is predicted to have a slight beneficial impact on noise levels at the property.

Mr & Mrs Neilson, 6A North Road; Mr & Mrs Mooney, 6 North Road; and Mr & Mrs Dursin, 4 North Road, Condorrat
(Agent: Baird Lumsden)

4.48 Mr & Mr Neilson, Mr & Mrs Mooney and Mr & Mrs Dursin submitted similar objections to the draft CPO.

4.49 They reside in Condorrat, in a 4 house cul-de-sac accessed from North Road. The entrance to the properties is located adjacent to the east side of the south end of the North Road overbridge, which would be replaced under the scheme proposals.

4.50 Part of the residents’ communal driveway and landscaped area, extending to approximately $358m^2$, has been included within the draft M80/M73 Special Roads (Mollinsburn to Auchenkilns) CPO (Plot 309) (Map No RYC/NL3/A/10, Sheet 3 of 3, in TRA 18).

The objections

4.51 A motorway through the Kelvin Valley would be less expensive than an on-line upgrade. When the residents purchased their houses they were advised that Cumbernauld would be bypassed and the A80 downgraded. They feel betrayed by this reversal. The ES is biased against human considerations.

4.52 Closure of the link road from North Road to the A8011/B8044 would cause traffic to increase greatly along North Road by St Maurice’s High School. This is presently congested in the morning and evening. The closure could result in a serious accident.
4.53 The compulsory acquisition of their land for the construction of a temporary road and bridge over the A80 would rob them of their seclusion and safety. The location of the temporary road would pose a serious risk to their children’s safety.

4.54 Entering and leaving their properties would be difficult. Mr Dursin owns large trucks, and access to and from his property would be seriously curtailed as a result of these proposals.

4.55 Trees which provide considerable screening would be felled to permit the installation of a noise barrier and construction of the temporary North Road overbridge. This would seriously diminish the privacy of the estate. The noise barrier would harm the outlook from the houses. The landscape and visual assessment is incorrect. The impacts would be felt for many years.

4.56 Noise, air pollution and disruption caused by construction of the scheme would have an adverse impact on the health of residents and their quality of life. No mitigation strategy would reduce the impact of construction work.

**TRA response**

4.57 It is anticipated that replacing the North Road overbridge would take 6-8 months. In order to maintain traffic flow on North Road during this work, it is proposed to construct a temporary bridge to the east of the existing bridge (Plans Nos BTI0005242/PH1/LO/02/Rev1, Sheets 1 & 2, in TRA 35). To do this, it would be necessary to acquire part of the residents’ communal driveway and landscaped area. It is intended that on completion of the works the land would be reinstated and returned to the residents. The Scottish Executive would probably retain a right of access to a small part of Plot 309 to allow entry for maintenance of the new bridge abutment.

4.58 It was previously proposed, as part of the M80 scheme, to construct a noise barrier along the northern boundary of the properties. However a 3m noise barrier was recently erected at this location under the Auchenkilns junction improvement scheme, and it would be retained on completion of the proposed M80 scheme. The installation of this barrier necessitated the removal of some mature trees within the highway boundary. It is not anticipated that any further clearance related to noise mitigation would be required under the proposed M80 scheme. However it would be necessary to remove some additional trees to facilitate the reconstruction of the overbridge. A section of the existing noise barrier, some 15-20m long, would be removed to accommodate the temporary overbridge, and it would be replaced on completion of the works. The number of trees removed would be kept to a minimum, and replacement planting would be provided.

4.59 It is predicted that the scheme would have a moderate adverse visual impact in the winter of the year of opening, reducing to slight adverse by the summer, 15 years after scheme opening, once mitigation planting had matured. With the noise barrier and proposed mitigation planting in place, it was not anticipated that there would be any permanent impact on the privacy of the residents of Nos 4, 6, 6A and 8 North Road as a result of the works.

4.60 Impacts during construction would be of a temporary nature and, where possible, steps would be taken to protect those living nearby. Due to the poor condition of the existing A80, significant works would be required even if the proposed scheme did not proceed. This
would involve the reconstruction of North Road overbridge and the resurfacing of significant lengths of the A80 pavement. The potential level of impact and disruption would be likely to be similar to that under the proposed M80 scheme.

4.61 Mitigation of noise during construction might include the use of barriers to reduce noise levels, ensuring all equipment was operating to specification, and on-site noise monitoring. Limitations on night time working would prevent any long term disruption to sleep. The 3m high noise barrier is effective in reducing road traffic noise. On completion of the scheme, the properties at North Road are predicted to experience a substantial beneficial effect in terms of noise levels compared to the previous situation.

4.62 Impacts on air quality during construction are generally associated with the generation of dust, and again these would be temporary, and probably infrequent. Measures would be taken to avoid significant impacts. Concentrations of pollutants in the future are predicted to be lower than those currently experienced by people living near the A80. This will be the case with or without the proposed scheme in place, and is due to a range of measures applied at a national level, such as improvements in vehicle technology and tighter emission standards. Concentrations will remain well below the Government’s health protection levels, and the proposed scheme should not have a detectable effect on the health of local residents.

4.63 During the works to replace the bridge, a signalised access would be provided, allowing the residents safe entry to and exit from their properties. The works would be likely to result in some delays and disruption to the residents, but these impacts would be temporary. During construction, the traffic situation on North Road would be monitored by the contractor, the police and NLC.

4.64 Fencing would be erected along the diverted North Road for the duration of the works in order to minimise temporary visual intrusion and to protect the safety of the residents. A temporary gate would be installed as a safety measure, and to prevent unauthorised access to the properties.

4.65 Following a meeting with Mr Neilson, Mr Mooney and their agent on 24 May 2005, copies of the following were issued for their review and comment:

• plans showing the construction sequence for the reconstruction of the overbridge, detailing the sequence of access and security measures for the North Road residents (based on the specimen design) (Plan No BTI0005242/PH1/LO/02/Rev1, Sheets 1 & 2, in TRA 35);
• draft accommodation works plan and accompanying schedule for the shared access to the properties (Plan No BTI0005242/PH1/AW/01, in TRA 35); and
• a plan showing the vehicle swept path for a 7.5 ton panel van measuring 7.2m long by 2.1m wide, which indicates that it would be possible to maintain access for Mr Dursin’s vehicle during these works (Plan No BTI0005242/WD/09, in TRA 35).

4.66 No response was received from the North Road residents or their agent regarding the above.

4.67 The Valuation Office would assess the level of compensation, if this was due, taking into account the value of the property and the value of related effects.
Mr & Mrs Gregg, North Road Cottage, North Road, Condorrat
(Agent: McCrae & McCrae)

4.68 Mr & Mrs Gregg’s house lies adjacent to the west side of the south end of the North Road overbridge.

4.69 An area of Mr & Mrs Gregg’s property covering approximately 33m$^2$ has been included within the draft M80/M73 Special Roads (Mollinsburn to Auchenkilns) CPO (Plot 307) (Map No RYC/NL3/A/10, Sheet 3 of 3, in TRA 18).

The objections

4.70 Mr & Mrs Gregg state that the M80 should be built through the Kelvin Valley, not through Cumbernauld. If it proceeded on-line, North Road overbridge should be rebuilt to the east of its present location, to avoid the need to acquire any of their property.

4.71 During the bridge replacement works, access by way of the ramp from North Road would be made significantly more difficult, and the available parking area would be reduced. The existing parking area extends to 216m$^2$, and it is used for parking vehicles, including a small lorry. There would be less than 3m available for access and turning between the house and the acquired land, and it would not be possible to park the lorry there. It is important to the family that access is available at all times.

4.72 Mr & Mrs Gregg sought confirmation of who would be liable for payment for repairs in the event that vehicles parked at the property were damaged as a result of the works. They also sought confirmation of the measures that would be incorporated in the scheme to ensure that North Road Cottage was not damaged by noise, dust and vibration during the works to the overbridge.

4.73 The acquisition of the plot and the proposed scheme would impact on any future plans to extend the house, and the property would be significantly devalued.

4.74 The proposed works would cause disruption for traffic on the A80 and in the village of Condorrat. The movement of pupils going to St Maurice’s High School would also be disrupted.

TRA response

4.75 The land would be required to create a safety zone during the demolition and reconstruction of the new North Road overbridge. It would be necessary to erect a temporary security fence along the edge of the triangular area of Plot 307 while the work was taking place. The fence would be placed approximately 2.9m from the northern corner of North Road Cottage for a maximum period of 6 weeks during the works (Plan No BTI0005242/PH1/LO/01, in TRA 35). The period would not be continuous, and the fence would be erected and moved back a number of times as the work required. No actual works would take place in the area of land included in the CPO.

4.76 The new bridge would be located on the line of the existing structure to minimise the extent of realignment of North Road. The land would be required regardless of the position of the new structure.
4.77 On completion of the works, the whole plot would be returned to Mr & Mrs Gregg, subject to agreement. Therefore it is not envisaged that the proposals would impact on any plans to extend the house. The Valuation Office would assess the level of compensation due, if any, taking into account the value of the property and the value of related effects.

4.78 With the fence in place, it should still be possible for a large family car to access the front of the property. This would be a tight manoeuvre for larger vehicles. However the fence would be of a type that could be moved easily by the contractor to permit wider access, including access by a lorry. The contractor would be instructed to liaise with Mr & Mrs Gregg on the times when such access would be required, with the intention of minimising the inconvenience caused.

4.79 Should vehicles parked on Mr & Mrs Gregg’s property be damaged by the contractor during the works to the overbridge, the contractor would be liable to pay for the repairs.

4.80 Pre- and post-construction condition surveys would be undertaken of the objectors’ property. Noise, vibration and dust generated during construction would be temporary, and would depend on the contractor’s chosen methods of construction. Noise mitigation measures during construction might include the use of barriers, ensuring all equipment was operating to specification, and on-site noise monitoring. There would be a requirement to adhere to noise levels set by local authorities. Dust impacts during construction could be minimised by the use of pumped spray water bowsers, cleaning of paved areas, enforcement of speed limits on unpaved ground, use of water suppression during cutting of any stone or concrete, and careful siting of stockpiles.

4.81 The impacts on local traffic associated with the replacement of the overbridge would be temporary, for a period of 6-8 months. During construction, the traffic situation on North Road would be monitored by the contractor, the police and NLC. Vehicular and pedestrian access along North Road to St Maurice’s High School would be available at all times during the replacement of the overbridge.

Mr & Mrs Merrick, Ingleneuk, No 3 Eastfield Holdings, Cumbernauld (Agent: McCrae & McCrae)

4.82 Ingleneuk is one of 3 properties at Eastfield Holdings, on the south side of the A80, east of Auchenkilns. The only vehicular access to Ingleneuk (and the other 2 properties) is directly from the A80. Under the scheme it is proposed to close this direct access and provide an alternative means of access from Old Glasgow Road.

4.83 An area of Mr & Mrs Merrick’s garden of approximately 659m$^2$ is included within the draft M80 Special Road (Auchenkilns to Haggs) CPO (Plots 513, 514 and 515) (Map No. RYC/NL3/B/10, Sheet 2 of 5, in TRA 29).

The objections

4.84 Building the motorway through the Kelvin Valley would be better than upgrading the A80 on-line.
4.85 Mr & Mrs Merrick object to the loss of a significant part of their garden. The area serves as a buffer between the house and the A80. They also object to the loss of woodland and animal habitat.

4.86 It would be better to construct a slip road from the proposed motorway, serving all 3 houses at Eastfield. That would be cheaper and more environmentally friendly than the proposed link to Old Glasgow Road.

4.87 The proposed access would result in a loss of security at the property. Joyriders use the existing stretch of Old Glasgow Road, and the proposed link road would be used by youngsters as a racetrack. Speed bumps and chicanes would not overcome this problem.

4.88 Parking at the football ground on Old Glasgow Road would block the new access road. There are competitive matches there at least 4 days per week.

4.89 The proposed access road would cross the outflow pipe from the house’s septic tank, and a drain flowing towards the A80. Both would need to be re-routed. There would be an increased flood risk.

4.90 The construction of the M80 and, subsequently, the increased traffic on the upgraded road would lead to more air pollution and noise.

4.91 Problems with peat were encountered during the works at Auchenkilns junction.

**TRA response**

4.92 The land would be required for the removal of peat beneath the proposed scheme, drainage works and the construction of a new driveway for Ingleneuk. It is intended that a proportion of this land (541m$^2$) would be returned to Mr & Mrs Merrick on completion of the scheme, subject to agreement (Plan No BTI0005242/PH2/LO/18, in TRA 35).

4.93 The new access from Old Glasgow Road would comprise a 3.5m wide single track road with passing places, a pedestrian footway, lighting and a turning circle. No further procedures or permissions would be required for the construction of this road. On completion of the maintenance period for the construction contract, the access road would be transferred to NLC for maintenance.

4.94 It is not Scottish Executive policy to provide direct vehicle access from individual properties on to motorways, on both safety and operational grounds. This approach is confirmed in SPP 17: Planning for Transport (TRA 47, paragraph 71). The TRA is not aware of any examples of direct access to residential properties from a main carriageway on the Scottish motorway network. There are also specific safety issues relating to both a direct access, similar to the current situation, and the provision of a slip road in close proximity to the Auchenkilns junction. Furthermore, such arrangements would not accommodate pedestrian access to the 3 properties. Various options to access the properties were developed and assessed, based on environmental impact, safety, technical issues and cost; and the option from Old Glasgow Road was found to be the most suitable.

4.95 Police consultation indicated that provision of a direct access from the M80 would not be any more secure than the proposed access via Old Glasgow Road. The proposed access
road would be lit, which should provide additional security benefits. A letter and plan were issued to Mr & Mrs Merrick and their solicitor on 27 July 2005, detailing the proposed fencing arrangement for the property and inviting comments on possible additional security measures. However no response was received.

4.96 Discussions were held with NLC regarding the parking situation at Cumbernauld Football Club’s grounds at Old Glasgow Road (NLC letter dated 12 August 2005 in TRA 35). In order to minimise the potential problem of illegal parking blocking the road during games, it is proposed to widen Old Glasgow Road adjacent to the football ground, and provide dedicated parking spaces and a turning area. At present Old Glasgow Road terminates approximately 260m west of the football ground. Once the road was extended and a dedicated parking area formed, the parking of vehicles would not be a significant problem. Pavement build-outs would be constructed along the new access road as a traffic calming measure to discourage potential joyriders. (Plan Nos BTI0005242/PH2 WD/60 & 61, in TRA 35). This plan was sent to Mr & Mrs Merrick’s agent on 23 August 2005.

4.97 With respect to air quality impacts, the closest relevant receptor assessed is Zoar Cottage (on the opposite side of the A80). The results indicate that the annual mean NO\textsubscript{2} level would increase negligibly with the scheme in place in both 2010 and 2025, and that annual mean PM\textsubscript{10} levels would remain the same in both years. Levels of both pollutants would remain well below the Government’s health protection objectives. The changes in risk would be small in comparison to that associated with day to day changes in air quality that occur in urban communities in Central Scotland as a result of weather conditions.

4.98 The impacts on noise levels during construction would be temporary, they would vary during the construction period, and they would ultimately depend on the contractor’s methods of construction. In relation to noise levels at Ingleneuk Cottage on completion of the scheme, the results in the ES for Seafar Cottage, also at Eastfield Holdings, were considered as representative of the noise levels that might be experienced. These indicate that the construction of the scheme, including low noise carriageway surfacing, and the installation of a 2m noise barrier, would reduce noise levels; and the scheme is predicted to have a substantial beneficial impact at this location. The ES indicates that the noise level in 2025 at Seafar, with the scheme in place with mitigation, would be some 7dB(A) less than at present.

4.99 The environmental impact of the proposals was considered as an integral part of the scheme development. Native woodland, hedge and ornamental planting are proposed to replace existing planting lost due to the scheme. A more interesting and diverse range of roadside vegetation would be created. It would provide screening of visual impacts and improve local amenity. Impacts on animal and bird populations would be minimal.

4.100 Pre-earthwork drainage, which might consist of an open channel or pipe, would be provided at the bottom of the motorway embankment, adjacent to Mr & Mrs Merrick’s property. The scheme should not therefore exacerbate the flood risk. The contractor would be required to maintain an outfall from the septic tank and intercept any land drains or ditches.

4.101 The average thickness of the peat present in the Seafar area is about 2m, whereas at the Auchenkilns junction there was up to 15m of soft deposits. The known areas of peat are not considered to represent a significant construction risk or difficulty. The failure of the slip
road at Auchenkilns resulted from a problem with the piling, not because of unforeseen ground conditions.

Mr & Mrs Cassidy, Seafar, Eastfield Holdings, Cumbernauld
(Agent: McCrae & McCrae)

4.102 Seafar is one of 3 properties at Eastfield Holdings. An area of Mr & Mrs Cassidy’s property covering approximately 1030m² has been included within the draft M80 Special Road (Auchenkilns to Haggs) CPO (Plots 521 (occupiers only), 522, 523 (occupiers only), and 524 (occupiers only)) (Map No RYC/NL3/B/10, Sheet 2 of 5, in TRA 29).

The objections

4.103 Building the motorway through the Kelvin Valley would be better than upgrading the A80 on-line. If the scheme was to proceed along the proposed route, the road should be aligned further north, thereby not affecting any of Mr & Mrs Cassidy’s land.

4.104 The proposed access road from Old Glasgow Road might be used by joyriders, and could pose a security risk. Also, it might become blocked due to parked cars at the football ground on Old Glasgow Road.

4.105 The proposed access road would result in the loss of garden ground and the loss of trees. It would also disturb an existing septic tank and watercourse, and could lead to drainage problems.

4.106 Noise would be a problem both during the construction phase and on completion of the scheme. The house sits above the level of the proposed motorway, and so the proposed 2m high noise barrier would not reduce noise there. Air pollution would also be a problem.

4.107 Problems with peat were encountered during the works at Auchenkilns junction.

TRA response

4.108 The land would be required for the removal of peat deposits beneath the scheme, drainage works, and the construction of the new access road to Eastfield Holdings. On completion of the scheme, it is intended that some parts of these plots would be returned to Mr & Mrs Cassidy, subject to agreement with the Scottish Executive.

4.109 The alignment of the road in this area is constrained by a number of physical factors, including residential properties located to the north of the road, the Auchenkilns junction and the Ravenswood footbridge. The proposed alignment of the motorway would be no closer to Mr & Mrs Cassidy’s property than at present. It is therefore not intended to move the route any further north at this location (Plan No BTI0005242/PH2/LO/35, in TRA 35).

4.110 Existing access/egress to and from Seafar (and the other 2 properties) is taken directly from the existing A80, and there are no other means of access to the properties. Under the scheme it is proposed to close direct access on to the A80 and provide an alternative means of access from Old Glasgow Road (as described above in the context of the objection by Mr & Mrs Merrick).
4.111 If the KVR was built, it is predicted that approximately 25,000 vehicles per day would remain on the existing A80 westbound carriageway at this point in 2010. As a consequence, some of the problems associated with the existing access arrangements, such as vehicles blocking the access, would still be experienced by the residents. It is likely that vehicle speeds on the A80 would increase, which could result in other safety issues.

4.112 Various alternative access options were developed and assessed, and the Old Glasgow Road one was found to be the most suitable. Following the meeting with Mr & Mrs Cassidy on 19 May 2005, details of the proposed traffic calming measures on the access road from Old Glasgow Road were discussed with, and approved by, NLC. Copies of the plans showing the proposals were issued to Mr & Mrs Cassidy’s agent on 23 August 2005 (Plans Nos BTI0005242/PH2/WD/60 & 61, in TRA 35). Police consultation indicated that provision of direct access from the M80 would not be any more secure than the proposed access. Old Glasgow Road would be widened at the football ground and dedicated parking bays provided. Pavement build-outs would discourage joyriding.

4.113 It is proposed to realign the existing drainage channel slightly south of its present location to ensure that it would be outwith the proposed motorway earthworks. As at present, the channel would drain into the Bog Stank watercourse at Old Glasgow Road, and it would continue to collect any run-off from the surrounding area. The contractor would maintain the outfall from the septic tank and intercept any drains or ditches.

4.114 The plots to be acquired from Mr & Mrs Cassidy include part of their driveway and an area adjacent to the existing A80. Existing woodland around the property would be retained where possible. The ownership of some of the garden ground occupied by Mr & Mrs Cassidy is unknown. It is proposed to plant a length of hedge between Seafar and the proposed access road, and a belt of mixed woodland/scrub between the access road and the proposed 2m high noise barrier fence alongside the motorway. In addition, a new close boarded timber fence would be installed along the new northern boundary to the garden at Seafar. These proposals have been developed in consultation with Mr & Mrs Cassidy.

4.115 Noise barriers would be installed prior to construction to reduce impacts during works. A band of trees does not provide effective noise mitigation. With the scheme and mitigation in place, Seafar would experience a substantial reduction in noise levels. The impact of the scheme on air quality would be insignificant.

4.116 The TRA’s views on the peat deposits in this area are set out above within its response to the objections by Mr & Mrs Merrick.

Mr & Mrs Harkin, Onich Cottage, Eastfield, Cumbernauld
(Agent: McCrae & McCrae)

4.117 Onich Cottage lies on the north side of the A80, to the east of Auchenkilns.

4.118 An area of land within the property covering approximately 55m² has been included within the draft M80 Special Road (Auchenkilns to Haggs) CPO (Plot 509) (Map No RYC/NL3/B/10, Sheet 2 of 5, in TRA 29).
The objections

4.119 Building the motorway through the Kelvin Valley would be better than upgrading the A80 on-line. If the scheme was to proceed along the proposed route, the road should be built further south.

4.120 Mr & Mrs Harkin’s septic tank might have to be replaced closer to the house. Alternatively, the Scottish Executive could connect the house to the public drainage system or construct a private drainage system.

4.121 Mr Harkin keeps pigeons in a pigeon loft in his garden. They are a rare breed and have taken a number of years to establish. The acquisition of the plot and the close proximity of the proposed scheme construction would have an adverse effect on the breeding potential of the birds. The Harkins also have dogs and hens.

4.122 Onich Cottage is elevated above the road, and the proposed 2m noise barrier would not mitigate traffic noise. It would be more environmentally friendly if trees and shrubs were also planted to cut down noise pollution and serve as a visual screen from the M80.

4.123 The acquisition of this land would have a detrimental effect of the value of the property. Any proposed extension of the house would be hampered by the acquisition.

TRA response

4.124 Plot 509 would be required to enable the contractor to remove peat deposits located in this area to facilitate construction of the scheme. It is intended that all of this plot would be returned to Mr & Mrs Harkin on completion of the scheme, subject to agreement (Plan No BTI0005242/PH2/LO/29, in TRA 35).

4.125 The alignment of the road in this area is constrained by a number of physical factors, including residential properties located to the south of the road, the position of the existing Auchenkilns junction, and the Ravenswood footbridge. The proposed alignment would be no closer to Mr & Mrs Harkin’s property than at present. It is therefore not intended to move the alignment any further south at this location.

4.126 The contractor would be required to maintain an outfall from the septic tank, both during and after the construction of the works. This would be stipulated in the contract documents for the scheme.

4.127 It is proposed to erect a temporary pigeon loft on land adjacent to Mr & Mrs Harkin’s property for the duration of the works in that area. A temporary security fence and padlocked gate would be erected around the loft to maintain security. In addition, the TRA proposes to erect security fencing along the top of the wall within Mr & Mrs Harkin’s garden during the works to contain their pets and livestock, as requested by Mr & Mrs Harkin.

4.128 The contractor would be required to liaise with the Scottish Executive’s site representative to ensure that loss of existing planting was minimised. Additional new mixed woodland planting is proposed between the new garden boundary of Onich Cottage and the proposed noise barrier at the back of the road verge. The contractor would also have to provide replacement hedge planting within Mr & Mrs Harkin’s garden. Whilst the new
planting would be unlikely to have an appreciable impact on reducing noise levels, it would help to screen views of the road and traffic. The proposed 2m high noise barrier at the back of the road verge would have a beneficial impact on the noise levels experienced at the property.

4.129 Should Mr & Mrs Harkin wish to apply for planning permission to extend the property, it is not anticipated that there would be any impact following completion of the works. The Valuation Office would assess the level of compensation due, taking into account the value of the property and value of related effects, including the impact on development proposals, where the appropriate planning certificates are in place.

Mr A Brown, South Garngrew Farm, Castlecary
(Agent: Hayes McCubbin Macfarlane – Perth)

4.130 South Garngrew farm steading lies to the east of the A80, at the south end of Haggs. The fields in question lie alongside the A80.

4.131 An area of Mr Brown’s property covering approximately 4235m² has been included within the draft M80 Special Road (Auchenkilns to Haggs) CPO (Plot 845) (Map No RYC/NL3/B/10, Sheet 5 of 5, in TRA 29).

The objections

4.132 The plot forms part of a larger grassland area which it is proposed to develop for housing. Mr Brown has had detailed discussions about the proposal with Falkirk Council. He has also sought to have the site identified for development in the revised local plan.

4.133 The plot has been identified by Mr Brown for the creation of a noise barrier and woodland screen for his proposed housing development (Map No MFDP/185/02, in TRA 35). The TRA’s proposals would reduce the area available for development, and would be detrimental to the entire development project.

4.134 It might be beneficial for Mr Brown to have an input into the design of the TRA’s proposed woodland screen.

TRA response

4.135 The land would be required for the construction of the proposed M80 earthworks. It is intended to plant mixed woodland on these slopes, within the highway boundary, adjacent to Mr Brown’s property (ES, Volume 3, Figure 12.6.19).

4.136 The site is not currently identified for housing development in the local plan for the area. The TRA understood that Mr Brown had previously submitted several planning applications for the development of the land, and that these had been refused. Falkirk Council stated in a letter (in TRA 35) which is undated, but which has a Jacobs Babtie stamp dated 29 July 2005, that it had no outstanding planning applications relating to the property.

4.137 In the TRA’s letter of 6 April 2005 to Mr Brown’s agent, and at meetings on 23 May and 20 June 2005, Mr Brown was advised that it was not intended, under the scheme, to
provide noise mitigation at this location as there was currently no requirement for such mitigation. Mr Brown was advised that the significance of the effect of the scheme on noise levels at a dwelling located immediately south of his house, known as 1 Cumbernauld Road, is predicted to be moderately beneficial. At the meeting on 23 May a digital copy of Mr Brown’s development proposals was requested, to determine more accurately the impact that the scheme would have on the potential development proposals. No response was received from Mr Brown or his agent on the above matters.

Mr & Mrs Sheret, 57 Glenview Avenue, Banknock, Bonnybridge
(Agents: Russel & Aitken, Solicitors; and David N Egerton, Planning Consultant)

4.138 Mr & Mrs Sheret’s house lies on the north side of Glenview Avenue, Banknock, adjacent to the north-eastern abutment of the Glenview Avenue overbridge, which would be replaced under the scheme proposals.

4.139 An area of this property covering approximately 290m² has been included within the draft M80 Special Road (Auchenkilns to Haggs) CPO (Plot 847) (Map No RYC/NL3/B/10, Sheet 5 of 5, in TRA 29).

4.140 Mr & Mrs Sheret’s objections to the principle of the scheme were included within the case presented by the CCC.

The objections

4.141 The scheme would not increase the vehicle carrying capacity of the road, which would be congested when complete. Congestion would arise where the carriageway changed from 3 lanes to 2 lanes, particularly near the Old Inns interchange. The westbound exit at the Old Inns interchange would become more congested due to the closure of the slip roads at the Castlecary viaduct and at the Old Inns interchange. The installation of traffic lights at the end of the Old Inns westbound exit slip road would only exacerbate the problem. At present, if there is an incident that closes the A80, then the surrounding roads become gridlocked as there is no alternative route; and under the proposed scheme this would remain unchanged. The proposed scheme would not be cost-effective. The construction of the scheme would cause chaos for many years.

4.142 The scheme should proceed through the Kelvin Valley for various reasons. The proposed KVR was to have been a dual 2-lane carriageway and would therefore have left the old A80 free for local traffic. Traffic leaving the M80 at Haggs to access the A803 to Kilsyth causes tailbacks on the M80 and congestion on the A803 from Haggs to Kilsyth. New housing in the Kilsyth area is adding to this difficulty, making it more difficult for local residents to access the A803. This would be relieved if the KVR was developed.

4.143 When Mr & Mrs Sheret acquired the site and subsequently built their bungalow some 18 years ago, the land searches did not indicate that any significant improvements to the A80 were planned.

4.144 The acquisition of the plot would necessitate the closure of the property’s sole access, and there would be a devastating effect on the garden. The gradient of the existing access is
approximately 1 in 7, and any relocation would be approximately 1 in 4. This would be unacceptable, and contrary to local highway regulations.

4.145 Insufficient detail has been provided to determine the nature of works to be undertaken both within and in the vicinity of the property, or the extent to which any encroachment would impact upon outlook, privacy and property valuation. It is unclear how much of the plot would actually be required for the works and what the future use of the plot would be. The Crichel Down rules would apply only in respect of any of the land which was not built upon, and which could be returned to Mr & Mrs Sheret.

4.146 The TRA did not examine noise levels at Mr & Mrs Sheret’s property. Mr & Mrs Sheret have not commissioned an independent specialist report to evaluate the information on noise provided by the TRA.

4.147 No alternative option to compulsory acquisition has been offered. Mr & Mrs Sheret object under the terms of The First Protocol, Article 1 and Article 8 of the Human Rights Act 1998 which gives everyone the right to respect private and family life, home and correspondence. It was submitted that the CPO would interfere with these rights, and has not been justified within the terms of Article 8(2).

TRA response

4.148 The overbridge would require to be replaced due to the substandard vertical clearance, and the condition of the structure, and to accommodate the additional width associated with the improved westbound merge slip road from the Haggs junction. The existing bridge would be demolished and replaced over a period of approximately 6-8 months. A small area of Mr & Mrs Sheret’s driveway and garden would be required to allow works to be undertaken to replace the bridge parapet and to provide 24 hour uninterrupted access to their property. Following discussions with Mr Sheret on 05 May 2005, it was proposed to reduce the extent of Plot 847 (Plan No BTI0005242/PH2/WD/63, in TRA 35).

4.149 On completion of the works, the driveway and garden would be reinstated. The plot would be returned to Mr & Mrs Sheret, in accordance with the Crichel Down rules. A right of access for the Scottish Executive to a small part of the plot would be retained to allow entry for maintenance of the new bridge (Plan No BTI0005242/PH2/WD/64, in TRA 35).

4.150 The gradient of the temporary driveway would not be significantly different to the existing, and it is not anticipated that there would be any problems with regard to compliance with regulations.

4.151 The TRA cannot comment on the adequacy of land searches carried out on properties. However investigations have been ongoing since the 1970s into both the on-line and off-line upgrade options for the M80 between Stepps and Haggs. The formal establishment of a preferred route comes with the publication of draft Orders, a step which Ministers have only now taken.

4.152 It is not anticipated that there would be any permanent impact upon Mr & Mrs Sheret’s privacy as a result of the works at the bridge. It might be necessary to remove a short section of hedge along the western boundary of the property; and if so, replacement hedge planting would be provided. It would also be necessary to remove a number of trees
from within the highway boundary. This might result in a temporary loss of privacy during construction. Privacy would be restored on completion of the new noise barrier. It is predicted that the scheme would have a moderate adverse visual impact in the year of opening, reducing to slight adverse by summer, 15 years after opening, once mitigation planting had matured.

4.153 Locations were selected for noise monitoring on the basis that they were representative of surrounding buildings, and the effects of noise would therefore be similar. The neighbouring St Luke’s Church was selected as a location for noise monitoring. The results of the noise assessment indicate that the installation of a 2m noise barrier would have a beneficial effect on the noise levels experienced at Mr & Mrs Sheret’s property. Plan No BTI0005242/WD/63, in TRA 35 shows the location of the proposed noise barrier.

4.154 Any potential impact on the property valuation would be a matter for the Valuation Office who would assess compensation, if it was due, taking into account the value of the property and the value of related effects.

4.155 With regard to Mr & Mrs Sheret’s human rights under Article 1 and Article 8 of the Human Rights Act, the Roads (Scotland) Act 1984 gives the Scottish Ministers the power to alter, widen, improve or renew trunk roads and special roads and to acquire land required in connection with such construction and improvement. The scheme is being promoted in accordance with the powers contained in the Act, and is in accordance with the law. The acquisition of this land is necessary to construct the scheme which, amongst other things, would improve public safety. Moreover, only that land which is necessary for the implementation of the scheme would be acquired. The reasons being relied on for the compulsory acquisition of the land justify the interference with the rights as set out. Accordingly, the acquisition of the land is justified in terms of Article 8(2).

Mrs M Khan, Greenlea Cottage, Lindsaybeg Road, Chryston

4.156 Mrs Khan and her husband are the owners of Greenlea Cottage. The property lies on the west side of Lindsaybeg Road, the B819, immediately north of the private access road to Peathill Farm.

4.157 Mrs Khan was included in the draft M80/M73 Special Roads (Moodiesburn Bypass) CPO as occupier of Plot 1103, an area of approximately 47m² at the east end of the access road to Peathill Farm (Map No RYC/NL3/C/10, Sheet 3 of 8, in TRA 30).

The objections

4.158 The scheme would result in large volumes of traffic travelling along the new motorway, less than 300m to the north of the property, where at present there is no vehicular traffic. This would result in increased noise, vibration and air pollution at the property.

4.159 The scheme would result in increased traffic flows along Lindsaybeg Road, with vehicles accessing and exiting the motorway. This would make access and egress from the property more dangerous.
4.160 In subsequent meetings, Mr Khan expressed concern about the absence of footpaths on Lindsaybeg Road. Mr Khan also requested that the proposed realignment of Lindsaybeg Road be extended to the south to remove an existing substandard bend.

**TRA response**

4.161 Plot 1103 was included in the draft CPO to allow the private access road to Peathill to be tied into the realigned Lindsaybeg Road.

4.162 The property is approximately 250m from the proposed motorway. While the motorway would contribute to an increase in traffic noise, it is predicted that the drop in traffic volume on Lindsaybeg Road would result in an overall reduction in traffic generated noise at the property. The scheme would not result in any traffic induced vibration at the property.

4.163 With the anticipated reduction in traffic volume on Lindsaybeg Road, the concentrations of the key pollutants, NO\(_2\) and PM\(_{10}\), would be likely to be lower than currently experienced. The scheme would not have a significant impact on air quality.

4.164 There would be no direct link between Lindsaybeg Road and the proposed M80. Traffic on Lindsaybeg Road is predicted to fall upon opening of the scheme. In terms of safety, the realignment of Lindsaybeg Road would be an improvement on the existing situation, with improved visibility for both those using Lindsaybeg Road and those using the access to Peathill Farm/Greenlea Cottage (Plan No BTI0005242/RO1/02, in TRA 35).

4.165 Mr & Mrs Khan currently access their property by way of the private access road to Peathill Farm. Following publication of the draft CPO, the TRA was informed that this is an informal agreement, and that Mr & Mrs Khan have no legal access agreement in place with the owners of Peathill Farm. It is therefore proposed to tie Mr & Mrs Khan’s unused access gate into the realigned Lindsaybeg Road to provide Greenlea Cottage with a legal access. NLC confirmed in a letter dated 24 August 2005 (in TRA 216) that this would be acceptable in principle.

4.166 There are currently no footways on Lindsaybeg Road adjacent to Greenlea Cottage. Following consultations with NLC, it is proposed to provide new footways on the realigned section of Lindsaybeg Road to maintain access between the existing rights of way located to the east and west of Lindsaybeg Road (Figure 17.1.1, in Volume 3 of the ES, TRA 95).

4.167 The purpose of realigning Lindsaybeg Road would be to accommodate the proposed motorway, and as such, the realignment of the side road network would be kept to a minimum. The side roads have been designed in accordance with DMRB, and the tie-in locations of the new roads have been agreed with the Scottish Executive Standards Branch and NLC. In addition, an independent Road Safety Audit was undertaken, and it did not identify any concerns about the bend to the south. The TRA considers that the alignment of Lindsaybeg Road would be an improvement on the existing situation.

4.168 Following the TRA’s letter of 31 March 2005 and the subsequent meeting on 21 June 2005, no response was received from Mr & Mrs Khan regarding the above.
Mr A Henderson, Kettlehill Farm, Baldernock, Milngavie
(Agent: Davidson & Robertson)

4.169 Mr Henderson is a beef farmer who resides at Kettlehill Farm, Milngavie. He has 2 additional holdings north-west of Moodiesburn, namely Davidston Mains and Cleddans Farms. As part of the scheme it is proposed to acquire land from both of these holdings. Areas of Mr Henderson’s properties covering approximately 154,882m² have been included within the draft M80/M73 Special Roads (Moodiesburn Bypass) CPO (Plots 1030, 1101, 1102, 1104, 1106, 1107, 1108, 1109 & 1110) (Plan No RYC/NL3/C/10, Sheets 2 and 3 of 8, in TRA 35).

The objections

4.170 The proposed land take of more than 37 acres (approximately 15 ha) would be excessive. It would also sever some 105 acres (approximately 43 ha), including the main cattle wintering centre for the farm, from the remaining 205 acres (approximately 83 ha) at Davidston and Cleddans.

4.171 Satisfactory accommodation works, including a stock crossing facility, have not been agreed. The scheme would have a severe effect on the running of the farm business.

TRA response

4.172 Land included in the draft CPO would be essential for the construction of the scheme, including: the motorway; the realigned Lindsaybeg Road; the realigned Garnkirk and Bothlin Burns; a retention pond; noise attenuation bunds; and access tracks to Mr Henderson’s property, Scottish Coal’s property and the Scottish Executive’s retention pond.

4.173 Mr Henderson farms in total some 404 ha, split between Milngavie and Moodiesburn. The business fattens some 800 cattle, with an outlet at the Glasgow Meat Market. The farm has a full range of machinery and equipment, and supports 5 workers. It is assessed as having a medium sensitivity, as the land is of average quality, supporting a moderately intensive livestock system.

4.174 The CPO plots extend to about 15.48 ha, which equates to 3.83% of the farm area. Additionally, the scheme would separate Hill of Chryston, the main cattle wintering centre, from Davidston Mains Farm. An area used for outwintering cattle would also be lost. Without mitigation, the operation of the unit would be compromised by severance as free movement between the 2 steadings of vehicles, machinery and livestock would not be possible and capacity for wintering cattle would be reduced.

4.175 However most mitigation and accommodation works have been agreed in principle. Access between the units would be provided by realignment of the existing farm track and provision of new access gates from the realigned Lindsaybeg Road. This would allow unhindered access for farm machinery and vehicles. Farm livestock has previously been moved along the farm track linking Hill of Chryston and Davidston Mains, without the need to use the public road network. Livestock could be moved between the units using the realigned farm access track and Lindsaybeg Road, and then on to the original farm track. To further aid this movement, cattle handling facilities are proposed, although the number and location of these have still to be agreed. Cattle could also be moved by livestock transport.
between the severed units. Accommodation works relating to gate locations, fencing type and drainage works have been agreed in principle. However replacement cattle wintering capacity has still to be agreed.

4.176 The magnitude of impact with mitigation is assessed as low. With mitigation, the significance of the residual impact would be slight.

4.177 The Valuation Office would assess the level of compensation due, taking into account the value of the property and related effects.

Mr M O’Donnell, Woodlands, Burnside Road, High Burnside, Glasgow
(Agent: Hendersons Chartered Surveyors)

4.178 Mr O’Donnell is the owner of Braeside Farm, to the north of Moodiesburn. An area of Mr O’Donnell’s property of approximately 154,917m² has been included within the draft M80/M73 Special Roads (Moodiesburn Bypass) CPO (Plots 1204, 1209, 1213, 1214, 1216 (occupier only), 1301 & 1302) (Map No RYC/NL3/C/10, Sheets 4 and 5 of 8, in TRA 30).

The objections

4.179 The permanent acquisition of land included in Plots 1209, 1214 and 1302 would have a detrimental effect on farming operations.

4.180 Mr O’Donnell wishes to continue farming at this location. An excambion of ground owned by the Scottish Executive was requested to offset that being acquired. The replacement ground, located adjacent to Gartferry Road, would reduce the impact that the proposals would have on Mr O’Donnell’s farm and ongoing agricultural practices.

4.181 The lack of a direct access under or over the motorway to the severed area would affect the business. The only alternative to enable use of the severed area, would be road transport by way of Auchengeich Road and Gartferry Road.

4.182 There are land drainage and flood related issues with regard to the existing watercourse affected by the acquisition of Plots 1204, 1209, 1213 and 1214. These could have a profound effect on Mr O’Donnell’s land. A new cut-off drain would be required to connect all existing drainage in Plots 1301 and 1302.

4.183 Accommodation works have not been agreed.

TRA response

4.184 The land would be required for the construction of the proposed M80, the realigned Auchengeich Road side road, and associated environmental mitigation measures. Plot 1214 would be required for the construction of a noise attenuation bund and a diverted right of way. Plot 1302 would be required for constructing a diverted right of way which would also be used as an access track for Mr O’Donnell. Plot 1209 would be required for grading out of slopes to allow a smooth transition into the adjoining landforms to mitigate landscape impacts. Some, or all, of Plot 1209 would be returned to Mr O’Donnell on completion of the scheme, subject to agreement.
Mr O’Donnell farms some 134 ha at Brae Side, and he rents a further 81 ha on a seasonal basis. The land supports a herd of 180 suckler cows. A small flock of ewes has also been maintained in the past. An extensive complement of machinery is retained, although a contractor is used for silage harvesting. Family labour is supported by casual assistance as required. The farm is assessed as being of medium sensitivity, as the land is of average quality and supports livestock systems of moderate intensity.

A hardcore track would be constructed adjacent to the north of the scheme, between Muckcroft Road and the northern part of the field located to the east of the former Stoneyetts Hospital site (Plan No BTI0005242/PH3/AW/04, Sheets 1 and 2, in TRA 35). Access to the southern section of this field can be achieved by utilising the existing Scottish Executive owned track from Gartferry Road, over which Mr O’Donnell has a right of access. It is proposed to upgrade the existing access track to accommodate livestock transport. A turning area would be constructed at the end of the track.

The Scottish Executive could not carry out an excahnption for the area of land that it owns adjacent to Gartferry Road, as identified by Mr O’Donnell (Plan No BTI0005242/PH3/WD/62, in TRA 35). On completion of the works, any land deemed surplus to requirements would be disposed of in accordance with the Crichel Down rules. These require the acquiring authority to offer the land back to the former owner in the first instance. Should the former owner not wish to purchase the land, the Scottish Executive would be required to sell the land on the open market.

Details of proposed accommodation works were discussed with Mr O’Donnell and his land agent at the meeting of 28 June 2005, and sent to them on 4 August 2005 for review. Negotiations about these works are ongoing between the Scottish Executive and Mr O’Donnell’s land agent.

The land in question falls towards the proposed motorway, which would be in cutting. Land drains encountered during construction would be intercepted by the contractor and connected to a drainage system. The contractor would be required to record and photograph the position of each land drain when intercepted, provide this information to the engineer, and add it to the ‘As Constructed Requirements’.

The upgrading works proposed for the existing watercourse and the installation of new culverts beneath the motorway would be designed to ensure that any risk of flooding was not exacerbated. The contractor would be responsible for designing the new culverts in accordance with the DMRB and SUDS practice, taking into account flood risk, and would be required to consult SEPA and NLC regarding flooding.

The unnamed watercourse in the vicinity of Auchengeich Road flooded on 10-12 December 1994, during a 1 in 200 year storm event. This was an extremely rare event which affected the River Kelvin catchment in a significant manner. The water could not flow from the unnamed burn into the Bothlin Burn due to high water levels in the latter, causing a backing up of flood flows in the unnamed burn. This indicates that the land that flooded between Auchengeich Road and the confluence with the Bothlin Burn provides storage attenuation, mainly for the flows of the unnamed burn, as discharge into the Bothlin Burn is restricted during a flood event. This helps to reduce flows in the Bothlin Burn during flood conditions.
4.192 Auchengeich Road would be realigned over the proposed motorway. An overbridge and embankments would be constructed for the side road. The embankments would be wide at their base, and they would encroach upon the existing flood plain of the unnamed burn immediately upstream of the confluence with the Bothlin Burn. Compensatory storage would be provided adjacent to the location where storage capacity would be lost. The proposed scheme would not result in a deterioration of the current drainage or flooding regime in the area.

4.193 The CPO plots extend to about 15.5 ha, which equates to 11.56% of the farm area and 7.21% of the total farmed area. It is anticipated that some 3.3 ha within Plot 1209 would be returned to agriculture following re-grading to mitigate landscape impacts. This would have the added benefit of a reduced slope with new sown grass making the field more flexible than at present. Total permanent land lost would therefore equate to about 12.2 ha (9.12% of the farm area and 5.68% of the total farmed area).

4.194 The acquisition of Plots 1302 and 1301 would cause severance of the southern portion of one of Mr O’Donnell’s fields, extending to an estimated 11 ha. Access through Mr O’Donnell’s land to the steading would be lost. The only alternative access would be by way of the public road network (Auchengeich Road and Gartferry Road) and an access track through Scottish Executive owned land. Travelling distance from the steading to the severed portion of the field would be 2.79 km, of which 2.68 km would be on the public road network. Although vehicle and machinery access would be available, livestock could no longer be walked to the severed area of the field, and would need to be transported. The revised access arrangements would result in additional cost to the landowner.

4.195 Mitigation has been agreed in principle with the landowner. A livestock handling facility, along with access for fixed body livestock transport, is proposed at the severed land to assist with stock loading and unloading. Fencing types, gate locations and drainage works have been outlined.

4.196 Overall, the magnitude of impact post-mitigation is assessed as high. The significance of residual impact would be moderate.

4.197 Any potential costs and additional time associated with gaining access to the severed land would be assessed by the Valuation Office to determine the level of compensation due.

Mr & Mrs Stewart, Mollinhillhead Farm, Mollinsburn
(Agent: McCrae & McCrae)

4.198 Mr & Mrs Stewart own Mollinhillhead Farm, to the south-west of Mollinsburn. An area of their property covering approximately 66,990m$^2$ has been included within the draft M80/M73 Special Roads (Moodiesburn Bypass) CPO (Plots 1306, 1307, 1308, 1309, 1310, 1311, 1312 and 1314) (Map No RYC/NL3/C/10, Sheet 5 of 8, in TRA 30) and the draft M80/M73 Special Road (Mollinsburn to Auchenkilns) CPO (Plots 102 and 106) (Map No RYC/NL3/A/10, Sheet 1 of 3, in TRA 18).
The objections

4.199 The scheme should proceed through the Kelvin Valley for various reasons. Failing that, an alternative route to the north would avoid sterilising valuable agricultural land. Mollinsburn interchange could be made smaller, which would lessen the impact on Mr & Mrs Stewart’s property.

4.200 Mollinhillhead Farm has been in the Stewart family for over 50 years. It is mainly a dairy farm. Prize winning Clydesdale horses are also bred. The stock requires as much grassland as possible. The loss of land and the possible re-routing of a gas pipeline would severely disrupt farming practice. Mr & Mrs Stewart would have to replace this grazing land or obtain fodder elsewhere, and they would need to find additional land in order to keep their Single Farm Payment at its full potential.

4.201 The farmhouse would be closer to the road network than at present, and air quality would deteriorate. Noise would also be a problem.

4.202 Trees on Plot 1306 would be removed. These screen the road from the farm, and they provide shelter for stock in extreme weather.

4.203 If field drains were not properly connected, land would become saturated, and there would be permanent damage to the farm’s productivity.

4.204 Plots 1307 and 1311 should be deleted from the CPO as they are required for gas pipeline diversions, not for the road. Mr & Mrs Stewart would not intend to allow Transco to use the farm access tracks to gain access to the proposed diversion location. However they would allow access by way of the periphery of the affected fields, adjacent to the A80.

TRA response

4.205 The land is required for the construction of the proposed Mollinsburn interchange and associated side roads.

4.206 As noted in Section 5.9 of the ES, various layout options for the Mollinsburn interchange were assessed. The proposed alignment has been designed to have a minimal impact on the various environmental and engineering constraints in the immediate vicinity, such as the Mollins Roman Fort, the Luggie Water, Mollinsburn Dyke, and Scottish Water’s Balmore to Glenhove bulk water pipeline which crosses beneath the A80. Due to these constraints, it would not be feasible to move the route any further north at this location.

4.207 Mr & Mrs Stewart farm 57 ha at Mollinhillhead, with a further 40 ha rented seasonally. The farm supports a dairy herd of 56 cows, plus followers and beef cattle. Additionally, some 15 Clydesdale horses are kept. The farm has an extensive range of equipment. Silage making is completed by contractors. Labour is otherwise provided by the family. The farm is assessed as having a high sensitivity due to the dairy enterprise.

4.208 It was originally proposed to acquire Plots 1307 and 1311 to allow the diversion of the existing high pressure gas pipeline. However Scotland Gas Network (formerly Transco) has since confirmed that the diversionary works required for the pipeline could be undertaken using a wayleave, and this is being negotiated. Provision of access for the works from the
periphery of the fields, adjacent to the A80, would minimise disruption to farming operations. It is now proposed to remove Plots 1307 and 1311 from the CPO at Made Order stage. Mr & Mrs Stewart were informed of these issues in the letter of 23 August 2005 (TRA 35).

4.209 The land permanently lost would now be 3.2951 ha. This equates to 5.78% of the farm area, and 3.40% of the total farmed area. Further land could be rented to secure Mr & Mrs Stewart’s entitlement for Single Farm Payment. It is not considered that this would entail an unacceptably high outlay. Compensation would be assessed based on the value of the property and any related effects.

4.210 Mollinhillhead farmhouse is about 265m from the existing A80 carriageway. The distance from the farmhouse to the edge of the new M80 would be about 500m, and the distance to the edge of the new M73 link roads would be 265m. The distance to the realigned Mollinsburn link road would be about 185m. The NO\textsubscript{2} concentration at Mollinhillhead is predicted to fall by 2010, and to fall further by 2025. The PM\textsubscript{10} concentration is predicted to remain relatively unchanged with or without the scheme in place. Concentrations of both pollutants are, and are predicted to remain, below the Government’s health projection objective levels.

4.211 It is predicted that, with the scheme in place, Mollinhillhead Farm would experience a moderate to substantial beneficial impact in terms of noise levels.

4.212 The loss of approximately 0.18 ha of woodland within Plot 1306 would not have a detrimental impact on the overall area of woodland available for sheltering livestock. Approximately 1.36 ha of existing woodland would be unaffected by the scheme. The proposal to provide hedgerow planting along the remaining boundary of the farm would reduce the visual impact of the scheme in time.

4.213 Land drains encountered during construction would be intercepted by the contractor and connected to a drainage system. There would be provision within the contract to correct any subsequent problems which might arise with field drainage as a result of damage during construction. Grassland could be reseeded and reinstated, and it is not considered that there would be a long term impact on productivity.

4.214 Mitigation relating to fencing type, gate locations and drainage works have been agreed in principle with the landowner.

4.215 The magnitude of impact is assessed as medium. The significance of residual impact would be moderate/substantial.

**Mr G Jackson, Badenheath Park Farm, Mollinsburn**

4.216 Mr Jackson is the owner of Badenheath Park Farm, to the north-east of Mollinsburn. An area of his property covering approximately 17,467m\textsuperscript{2} has been included within the draft M80/M73 Special Roads (Moodiesburn Bypass) CPO (Plot 1339) (Map No RYC/NL3/C/10, Sheet 5 of 8, in TRA 30) and the draft M80/M73 Special Roads (Mollinsburn to Auchenkilns) CPO (Plots 117 and 118) (Map No RYC/NL3/A/10, Sheet 1 of 3, in TRA 18).
The objections

4.217 Badenheath Park Farm is a small unit. The plots which it is proposed to acquire represent a large portion of the unit. The loss of this land would be detrimental to Mr Jackson’s business;

4.218 The location proposed for the access road to the retention pond is unsuitable. It would be almost opposite the access to Badenheath Park Farm, and it could cause manoeuvrability and congestion problems. It would also be very close to a blind corner, regarded locally as an accident black spot.

TRA response

4.219 The land is required for the construction of a retention pond for the proposed motorway, and for associated environmental mitigation measures.

4.220 Mr Jackson farms 31.6 ha of land. The farm supports a herd of 30 suckler cows. A full range of agricultural equipment is owned. There is no employed labour. The farm is assessed as having a medium sensitivity, as the land is of average quality and it supports a livestock system of moderate intensity.

4.221 Under the scheme, a total of 1.71 ha would be lost. This equates to 5.41% of the farm area. Most of this land is normally used for grazing cattle and for the growing of silage for winter feeding.

4.222 The loss of the land to agriculture would reduce the productive capacity of the business and have a knock-on impact on its financial performance. This assumes that there is no increase in intensity of production on the remaining land. Compensation would be assessed, based on the value of the property and any related effects.

4.223 Mitigation in respect of fencing type, gate locations, access arrangements and drainage works has been agreed in principle.

4.224 The significance of residual impact is assessed as moderate.

4.225 The access road would be used for periodic maintenance only. It would not be used on a regular basis. Problems associated with congestion or manoeuvrability are therefore not anticipated. The access has been designed to provide sufficient visibility for vehicular access to, and egress from, the site in accordance with DMRB. Traffic flows along Cumbernauld Road, Mollinsburn and Main Road, Condorrat would be lower than if the scheme was not built, as traffic would re-route on to the new motorway.

Mr P Weir & Son, Castlecary Mill Farm, Banknock, Bonnybridge
(Agent: Macdonald Fraser)

4.226 Messrs Weir are the owners of Castlecary Mill Farm, which lies on both sides of the A80 to the south of Banknock and Haggs. Areas of the property extending to approximately 21,326m$^2$ have been included within the draft M80 Special Road (Auchenkilns to Haggs) CPO (Plots 828, 834, 837 & 842) (Map No RYC/NL3/B/10, Sheet 5 of 5, in TRA 29).
The objections

4.227 The area of land which it was proposed to acquire would be excessive. Acquisition would have a material effect on the viability of the remaining holding.

4.228 Plot 828 concerns the installation of a pipe taking surface water to a nearby watercourse. The pipe could be installed by means of a separate agreement. Acquisition would not be necessary.

4.229 Plot 834 concerns the formation of a new cycleway and an access track. The cycleway could be created in adjacent scrub land, outwith land owned by Messrs Weir. In addition, it is proposed that the new access track would be constructed to replace an existing access track which is regularly used by the owners. As this would be a private access track, it could be constructed on land which would remain in the ownership of Messrs Weir, thus negating the need for land acquisition in this area.

4.230 Plot 842 concerns the creation of a reed bed/filtration plant. This use is considered too remote from road construction to be acquired compulsorily. Acquisition of this plot would require direct negotiation with Messrs Weir.

TRA response

4.231 The land is required for the construction of the motorway, drainage works, a public cycle track and a private access track. The cycle track would be transferred to Falkirk Council for maintenance on completion of the maintenance period for the construction contract. The private access track would be transferred back to Messrs Weir’s ownership on completion of the maintenance period for the construction contract.

4.232 Messrs Weir farm 71.2 ha of land. The farmed area has declined in recent years as the business has released land farmed on short-term lets. Enterprises include the growing of cereals, and cattle finishing. The farm holds a full complement of machinery and has no employed labour. It is assessed as having a high sensitivity of impact, as it has land of good quality and supports a relatively intensive arable cropping system.

4.233 It was originally proposed to acquire Plot 828 for the construction of the motorway, and for the installation of attenuation pipes which would outfall to the Red Burn. It is now proposed that Plot 828 be reduced in size from 0.4017 ha to 0.1633 ha, to include only that land required for the construction of the motorway. The balance of the original Plot 828, extending to 0.2384 ha, would be amended at Made Order stage to form a drainage servitude plot, to be identified as Plot 879, to enable the installation of the pipes and future maintenance to be undertaken (Plan No BT10005242/PH2/LO/06/RevB, in TRA 35).

4.234 Plot 842 is also required for the purpose of carriageway drainage – for the construction of a retention pond and outfall to the Bonny Water. The retention pond is an essential component of the proposed scheme.

4.235 Following discussions with Mr Weir and his agent, Plot 834 has been reduced to include only the land required for the construction of the cycle track for Falkirk Council. This would reduce the land permanently lost to this plot from 0.6567 ha to 0.3657 ha. This has been made possible by segregating the proposed cycle track and Messrs Weir’s new
access track, and by removing the land required for the access track from Plot 834. The alignment of the cycle track could not be moved closer to the B816 without the removal of a significant block of mature screen planting. The construction of Messrs Weir’s access track would be undertaken through agreement with Mr Weir. Plans and a written summary of the proposed changes were submitted to Mr Weir on 27 July 2005.

4.236 The area of land permanently lost to the proposed scheme would be 1.6032 ha. This represents only 2.25% of the farm area, and it is not considered that it would have a material effect on the viability of the remaining holding. Mitigation has been agreed in principle with the landowners in relation to access, access tracks, gate locations, fencing type and drainage works. Compensation would be assessed, based on the value of the property and any related effects, and would be paid where due. With mitigation, the significance of residual impact would be slight/moderate.
CHAPTER 5

FINDINGS OF FACT

5.1 I find the following facts, the test applied being the balance of probability.

Factual background

5.2 I incorporate paragraphs 1.1-1.35 above dealing with introduction; historical development of proposals and policy; the proposals; and the draft Orders and Schemes.

Further historical and policy matters

5.3 There is broad agreement that the A80 from Stepps to Haggs should be replaced by a motorway.

5.4 In 1972 (CG/BJ/01 and 12), 1979 (TRA 73) and 1990 (TRA 76) plans or reports were produced which favoured the construction of this motorway to the north of Cumbernauld, through the Kelvin Valley. However no draft Orders were published for such a route.

5.5 In 1996 the Babtie Group undertook a full comparative assessment of the off-line, Kelvin Valley Route (KVR) and the on-line, A80 Route. In the summer of 1996 the 2 options were considered at the M80/M73 Stepps to Haggs Consultation Forum. In February 1997 the Babtie Group recommended that the A80 Route be adopted as the preferred option (TRA 87, section 7). On 7 February 1997, Ministers announced their support, in principle, for the on-line route. That support was reiterated in 1999, in the decisions following the Strategic Roads Review (TRA 10 and TRA 11). It was also stated that no further consideration would be given to the off-line, KVR.

5.6 The Babtie Group concluded in its 1997 report: “In the final analysis it is the scope to successfully mitigate the impacts .... and to respond to the concerns raised during the public consultation exercise that has been of key importance in determining the preferred route.” (TRA 87, paragraph 7.3.11) Ministers’ support, since 1997, for the on-line route in preference to an off-line route appears to reflect, in particular, the increased weight attached to environmental considerations.

5.7 The Babtie Group recommended a full motorway upgrade, but in January 2003, in their decisions following the Central Scotland Transport Corridor Studies (CSTCS), Ministers decided to proceed with a limited upgrade (TRA 14). At the same time, they decided to proceed with a number of public transport investments in the area.

5.8 The decision to proceed with a limited upgrade reflects other policy decisions taken at around that time. In 1998 the Scottish Integrated Transport White Paper – ‘Travel Choices for Scotland’ (TRA 9) acknowledged that a ‘predict and provide’ approach to road building was inappropriate. In 2002 the Executive announced that it would strive to stabilise traffic at 2001 levels by 2021 (TRA 12); and this was restated in June 2004, in another White Paper – ‘Scotland’s Transport Future’ (TRA 13).
5.9 The proposed scheme accords, or at least does not conflict, with most relevant planning policies, including those contained in the National Planning Framework for Scotland (TRA 50) and in up to date development plans.

5.10 Since the decision, in January 2003, to proceed with a limited upgrade, the proposed route has been further refined. Alterations made to the route near Barbeth Moss, Mollins Roman Fort and Castlecary would help to reduce various adverse environmental impacts.

The scheme – further matters

5.11 The southernmost part of the route, between Stepps and Mollinsburn, would be built off-line, through the countryside, and would bypass Muirhead and Moodiesburn. By contrast, the remainder of the route, from Mollinsburn to Haggs, would be built largely on-line, through Cumbernauld. This off-line/on-line split reflects the different nature of the existing A80 to the south and north of Mollinsburn. To the south, the A80 is a very urban road in places, with a significant number of nearby properties, and a concentration of junctions and private accesses. To the north, the A80 is bounded on either side by parts of Cumbernauld, but it nevertheless runs through a generally more open, less urban corridor.

5.12 The TRA’s evidence is that the scheme has been designed to accommodate the predicted traffic growth up to the year of opening – 2010; and that if traffic volumes continued to grow beyond 2010, integral demand management measures would be introduced. The CCC’s evidence is that the proposed road would not be able to accommodate the predicted traffic flows in 2010; and that it would probably be congested as soon as it was opened, unless effective measures to restrict the growth of traffic had been implemented nationwide by then. The inquiry was not able to explore the calculations behind these conflicting positions in sufficient detail to enable me to make a clear finding on this matter.

5.13 However, I consider it significant that the CSTM3a model, which was used to assess the scheme, appears to over-estimate population levels, and therefore traffic growth. Also, the model takes no account of the impact of measures designed to discourage car travel. One such measure is the publishing of SPP 17: Planning for Transport, which, amongst other things, promotes sustainable transport. Another is the investment in a range of public transport initiatives in the area. Both are likely to, at least, limit the growth in the number of cars on the roads. In these circumstances, I consider that it is reasonable to expect that the proposed motorway would be operating satisfactorily on its expected opening date in 2010.

5.14 The total scheme cost is estimated to be in the range £127-146 million, excluding VAT, with the most likely cost being £137 million, excluding VAT.

5.15 During the construction of the scheme, 2 lanes of traffic in each direction would be maintained on weekdays between 6.00 am and 8.00 pm. This should ensure that there was no major diversion of A80 through traffic on to the side road network.

5.16 Cala Homes/Lynch Developments have a proposal to construct a motorway service area (MSA), which would be accessed from the Hornshill junction at the south end of the scheme. The proposal might necessitate minor changes to the junction, but would probably not require the making of fresh Orders. The TRA would be willing to discuss any detailed proposals with the developers. If and when the developers obtained planning permission for
the MSA, the TRA would be prepared to discuss adjustments to the contract to facilitate the development. The developers would be liable for any additional expenditure.

5.17 Following discussions with landowners, the TRA has proposed some minor amendments to 2 draft Side Roads Orders and the draft Extinguishment of Public Rights of Way Order (TRA 216).

Objective appraisal

5.18 The objectives of the proposed scheme reflect the 5 criteria for the appraisal of transport proposals set out in the Scottish Transport Appraisal Guidance (STAG) Manual: environment, safety, economy, integration and accessibility (TRA 155). The site-specific objectives are set out fully in the ES (TRA 92, paragraph 4.3.7).

5.19 With respect to environment, the scheme would result in both beneficial and adverse impacts, as elaborated upon below. The construction of most of the motorway on-line would help to minimise its impact on the built and natural environment. The mitigation proposed would help to minimise the impact on the communities and the environment through which it would pass.

5.20 With respect to safety, the opportunity for conflict between vehicles and between vehicles and pedestrians would be minimised by bypassing the most urban section of the A80 through Muirhead and Moodiesburn, and by improving the design of the main road and its junctions. An independent Stage 1 Road Safety Audit (TRA 145) has been undertaken.

5.21 With respect to economy, the scheme would reduce delays and improve journey time reliability. It would have a high net present value (NPV) and a high benefit to cost ratio (BCR) (TRA 142). One business would be removed, and several others would be affected, but the wider economic benefits of the scheme would outweigh these disadvantages.

5.22 With respect to integration, the scheme would make a major contribution to completing the Central Scotland motorway network.

5.23 With respect to accessibility, the scheme would improve access to and from the strategic road network for the local area.

Required maintenance work, and the ‘do-minimum’ option

5.24 As noted above (paragraph 1.3), much of the carriageway is near the end of its structural life, and major maintenance work will be required soon. The route will therefore be subject to major disruption, whether or not the proposed scheme proceeds.

5.25 A ‘do-minimum’ scenario was developed, as required by the Design Manual for Roads and Bridges (DMRB). This would involve upgrading the A80 to give 20 years’ design life, and making various improvements to the carriageway cross-section, vertical alignment and junctions, amongst other things. The cost estimate is £36.9 million, excluding VAT.

5.26 Jacobs Babtie concluded that the ‘do-minimum’ option would not meet any of the scheme objectives (TRA 143, paragraph 8.2).
Environmental impacts

5.27 Any impacts relating to geology or groundwater would probably be negligible.

5.28 The proposals appear to comply with current guidance relating to flooding, drainage and water quality. Water quality would be monitored prior to, and during, construction. It appears that appropriate provision has been made for climate change.

5.29 Three SINCs, but no European or nationally designated sites of ecological importance, would be affected by the proposed scheme. The requirement to obtain an otter development licence would ensure that impacts on that European protected species were minimised. Extensive mitigation measures are proposed. Overall, the impacts of the proposed scheme on ecology and nature conservation were assessed as being minor adverse in the short term and, once new habitats had matured, neutral.

5.30 The proposed scheme would affect 16 farm businesses. Residual impacts for these businesses were assessed to range from moderate/substantial to negligible/slight. The overall residual impact was assessed to be slight/moderate. The net loss of farm land would be about 64 ha, of which less than 2 ha is prime land.

5.31 A number of paths would be diverted as a result of the proposed scheme. The overall impact on pedestrians, cyclists and equestrians was assessed as significant to moderate adverse between Stepps and Mollinsburn, and slight adverse to negligible between Mollinsburn and Haggs.

5.32 All existing crossing points on the A80 would be retained. Community severance in Cumbernauld would not be significantly affected by the proposed scheme. Community severance in Muirhead and Moodiesburn would lessen, as a result of the reduced traffic on that section of the A80.

5.33 The landscape impact of the scheme would vary over its length, and reduce over time, as mitigation planting matured. Landscape impact in the winter, year of opening, was assessed to be moderate to substantial adverse between Stepps and Mollinsburn and between Auchenkilns and Haggs, and slight to moderate adverse between Mollinsburn and Auchenkilns. By summer, 15 years after opening, these impacts would have reduced to either moderate adverse or slight adverse. In the longer term, the main landscape impacts would be in the rolling countryside between Stepps and Mollinsburn, due to the introduction of the motorway; and, more locally, in Castle Glen, due to the loss of woodland and the opening of views.

5.34 Visual impacts would also vary over the length of the road, and reduce over time. For example, it was assessed that 340 building receptors would be affected by moderate or greater adverse impacts in the winter, year of opening, but that only 34 would be affected to this extent by the summer, 15 years after opening.

5.35 SNH is satisfied that the proposed scheme would affect few sites of important natural heritage interests, and that it would have limited impacts on internationally important species. It accepts that the proposals would not harm the Mollinsburn Road Cutting (Geological) SSSI. I agree with its assessment.
5.36 HS is satisfied that the proposed route successfully avoids the most significant historic environment assets within the area, and that the scheme would not have a significant impact on the historic environment. I agree with its assessment.

5.37 The construction period is estimated to be a maximum of 3 years. Each location along the route would be affected by construction impacts for only a fraction of this period. These impacts, including noise and dust, would depend upon the contractor’s methods of construction. Particular care would need to be taken to minimise disturbance during night time working.

5.38 The scheme would result in a substantial reduction in traffic along the existing A80 between Stepps and Mollinsburn, and it is predicted that approximately 700 residential properties in that area would benefit from reduced noise levels. At the same time, approximately 300 properties in the vicinity of the new off-line section would experience a substantial increase in noise levels. Almost all of the approximately 2500 properties along the on-line section between Mollinsburn and Haggs would experience a decrease in noise levels, despite the increase in traffic. This is mainly because of the noise bunds and fences which would be constructed along the sides of the road. Further noise reduction would be achieved by the use of low noise surfacing on the road. The most notable exception would be approximately 100 properties on, and close to, Main Road, in Dalshannon and Condorrat. They are predicted to experience an increase in noise, whether or not the scheme proceeds, due to increased traffic on Main Road.

5.39 Nitrogen dioxide (NO$_2$) and particulate matter less than 10 micrometres in diameter (PM$_{10}$) are the 2 key pollutants associated with road traffic. Areas bypassed by the proposed motorway – Muirhead, Chryston and Moodiesburn – would experience the greatest benefits with respect to these pollutants. Between Mollinsburn and Haggs, the majority of impacts with respect to these pollutants are predicted to be insignificant. Throughout the route length, no receptors would experience concentrations above the official air quality objectives.

5.40 Emissions of carbon dioxide (CO$_2$) are predicted to increase over the period 2003 to 2025, with or without the scheme, because of the projected general growth in traffic.

5.41 The scheme would probably have no measurable impacts on community health.

**The Kelvin Valley Route**

5.42 Building a motorway through the Kelvin Valley would result in less interruption to the flow of traffic on the existing A80 than building the proposed scheme.

5.43 A motorway through the Kelvin Valley would have certain operational benefits over the proposed scheme. In particular, it would be used by more long distance, through traffic, and less short distance, local traffic than the proposed on-line motorway.

5.44 Building a motorway through the Kelvin Valley would allow the existing A80 to be de-trunked and passed to NLC as the local roads authority.

5.45 Some of the objectors would wish to see the A80 downgraded following the construction of a motorway through the Kelvin Valley. The Cumbernauld Extension Area – Outline Plan (CG/BJ/12), which dates from 1975, indicated that the intention at that time was
to downgrade the section of the A80 between Auchenkilns and Cumbernauld Village. If traffic flows and speeds on the A80 were significantly reduced, it might become safe for pedestrians and cyclists to travel along and across it. In those circumstances, the A80 would constitute less of a barrier than it does at present, and community severance would be reduced.

5.46 If the KVR motorway was built, it is predicted that the traffic flow in 2010 on the A80 between Mollinsburn and Low Wood would be 40,000-60,000 vehicles per day. Between Auchenkilns and Old Inns, the predicted flow is 25,000-45,000 vehicles per day.

5.47 NLC’s Director of Planning & Environment has expressed the view that the A80 would remain as a major distributor road, and that 2 lanes in each direction would be appropriate to manage the predicted volume of traffic. He has expressed concern that any reduction in the capacity of the A80 would encourage drivers to use Westfield/Eastfield Roads and Main Road, Condorrat-Mollinsburn, and that additional traffic on these roads would have unacceptable adverse effects on the local villages. (TRA 218) I consider these concerns to be well-founded.

5.48 Maintenance work on the A80 would be required even if the KVR motorway went ahead. The extent of this work would be less than in the ‘do-minimum’ scenario.

5.49 The cost of the KVR motorway is estimated in the Stage 2 Review 2005 at £239-271 million (compared to £127-146 million for the proposed scheme). The difference between the estimated costs of the 2 schemes is now much greater than with previous estimates. Much of this is due to 4 factors: the addition of £25 million to the cost of the KVR for the tunnel under the Antonine Wall; the addition of £15 million to the cost of the KVR for specialist geotechnical measures; the reduction of £25 million from the cost of the proposed scheme because the Auchenkilns junction improvement has proceeded as a separate contract; and the reduction of £20 million from the cost of the proposed scheme because the reduction in the number of lanes would allow some existing structures to remain. (TRA 144, section 3.2)

5.50 Constructing the KVR motorway, and retaining the A80 as a dual carriageway for through traffic, would increase road capacity in the area beyond that which would result from the proposed on-line upgrade. If, contrary to Ministers’ aspirations, traffic continued to grow beyond 2010, the KVR motorway, coupled with the A80, would be able to accommodate this traffic more easily than the proposed on-line motorway. The onset of serious congestion could at least be delayed, and its effects minimised. The A80 could act as a relief road if the KVR motorway was blocked by an accident. As congestion is detrimental to the local and national economy, it is arguable, on the basis of the above scenario, that the KVR would have some economic benefits over the proposed scheme. However Ministers wish to break the link between economic growth and ever increasing traffic levels. Their policies imply the need to increase the efficiency of the trunk road network, not just its capacity. Solutions that rely on accommodating unrestrained traffic growth are contrary to these policies.

5.51 There are fewer than 60 addresses within 300m of the KVR. By contrast there are more than 3300 addresses within 300m of the proposed on-line upgrade.

5.52 The environmental impacts of the proposed route have been assessed in greater detail than those of the KVR. However the KVR has been examined in sufficient detail, most
recently in the Stage 2 Review 2005 (TRA 144), and in witnesses’ evidence, to enable robust comparisons of most of these impacts to be made.

5.53 The KVR passes through more significant peat deposits, more former landfill sites and more extensive areas of mine workings than the proposed route. As a result, the KVR would be likely to result in more significant adverse impacts relating to geology and groundwater than the proposed route.

5.54 The KVR would pass watercourses that appear to be more sensitive than those affected by the proposed route. The KVR would be likely to have a greater adverse impact on flooding than the proposed route, and dealing with this would necessitate more expensive solutions.

5.55 SEPA considers that the proposed route would represent a more environmentally sustainable option than a new route through the Kelvin Valley (TRA 160).

5.56 The KVR would be damaging to more sites and more species of ecological importance than the proposed route.

5.57 The KVR would be likely to affect more than twice as many agricultural units as the proposed route (38, as opposed to 16), and result in the loss of more than 3 times as much agricultural land (220 ha, as opposed to 64 ha).

5.58 The Kelvin Valley has historically been used as a transport corridor, for roads, the Forth and Clyde Canal, and railways; and significant parts of it have been used for mining and landfill. Despite this, most of the Kelvin Valley remains as open countryside, with a mainly attractive, rural character. The entire KVR motorway would pass through countryside, whereas most of the proposed scheme would be on-line. Largely as a consequence of this, and no matter how carefully it was designed, the KVR motorway would be bound to have a more severe impact on landscape character than the proposed scheme. The absence of details of the KVR precluded an assessment of the relative visual impacts of the 2 routes.

5.59 SNH (and its predecessor, the Countryside Commission for Scotland) has consistently opposed a route through the Kelvin Valley, on the grounds that it would be likely to have more serious impacts on natural heritage interests than an on-line upgrade. I agree with this assessment, which accords, in particular, with findings 5.56 and 5.58 above in respect of ecology and landscape.

5.60 The KVR would cross both the Antonine Wall and the Forth and Clyde Canal. HS is strongly opposed to the KVR, because of the major impacts it would have on these scheduled monuments – especially the Antonine Wall, which is of international importance.

5.61 The Antonine Wall is not visible on the ground at the KVR crossing point, but it appears likely that important buried archaeological deposits will have survived in that area. Constructing the KVR motorway in a cutting where it crosses the Wall would conflict with the principles, advocated by HS, of preserving scheduled monuments in situ, and ensuring minimal intervention. It would be possible to avoid a direct impact on the Wall by tunnelling under it, but archaeological remains in the vicinity of the Wall would still be disturbed. A major disadvantage of tunnelling is its cost – an estimated £25 million.
5.62 Parts of Barr Hill and Croy Hill, including those with very important sections of the Antonine Wall, are accessible to the public. The KVR motorway would cross the Wall between Barr Hill and Croy Hill, and it would be clearly visible in some views from both hills. Whether it was constructed in a cutting or in a tunnel at the crossing point, the KVR motorway would have a serious impact on the landscape setting of the Wall.

5.63 The KVR would cross over the canal at an oblique angle, in the attractive area between the Auchinstarry marina and the Dullatur bridge. It would have a major impact on the setting of the monument, and on the enjoyment of those using the canal for recreation.

5.64 In recent years, the weight which it is appropriate to attach to impacts on the Antonine Wall and the Forth and Clyde Canal has increased. In 2003 Ministers announced that Scotland would be proposing the Antonine Wall to UNESCO as a World Heritage Site, as part of a wider international initiative covering all the frontiers of the Roman Empire. World Heritage Site status would be likely to lead to improved recognition and management. HS has warned that any failure on the part of the state to protect the Wall could prejudice the ratification of the nomination. The importance of the canal has grown following its restoration and re-opening under the Millennium Link Project, and its increased use for recreation.

5.65 A motorway through the Kelvin Valley would afford attractive views over the valley, and towards the Kilsyth Hills. By contrast, views from much of the on-line route would be partially contained by noise bunds and fences, and landscaping.

5.66 The KVR motorway would result in increased noise in the Kelvin Valley. It would also be likely to result in higher noise levels along the A80 than would be the case with the proposed on-line upgrade. There are 2 reasons for this. Firstly, as noted above in finding 5.46, residual traffic flows on the A80 are predicted to remain at a high level. Secondly, it is very unlikely that noise bunds and fences would be constructed along the de-trunked A80.

5.67 The KVR would offer a greater potential for improved local air quality, as measured by concentrations of NO$_2$ and PM$_{10}$, than the proposed scheme.

5.68 Overall, the KVR would probably have no measurable community health benefits over the proposed scheme.

**Statutory objections**

5.69 Of the 26 statutory objections made to the 3 CPOs, 18 are outstanding.

5.70 The TRA has proposed a number of amendments to 2 of the CPOs (TRA 215). Some of these result from discussions with landowners. Others follow on from the TRA’s decision that land required for public utility diversions and for drainage need not be compulsorily acquired. Instead, it is now proposed that utility diversions be undertaken through wayleaves negotiated by utility companies, and that land required for drainage works be included as permanent servitude plots.

5.71 Some of the statutory objectors raised general issues relating to the proposed scheme. I have addressed the major ones in the findings above.
Some of the statutory objectors referred to effects on the value of their property, and the compensation that they might receive. Such matters would be assessed by the Valuation Office, and are not relevant to the considerations before me.

Mr MacBeath, Glenside Cottage, Castlecary

The land within the draft CPO would be required for grouting works beneath the surface of the ground.

The proposed motorway would be aligned some 15m to the south-east of the existing A80 at this location, away from the houses in Castlecary, and towards Castlecary Glen. Re-aligning it further south-east would necessitate substantial earthworks, and an increased impact on the environmentally sensitive Castlecary Glen.

The TRA has confirmed that trees within Mr MacBeath’s property would not have to be felled. Some trees on adjoining land owned by Stewart Homes might have to be removed to enable the work to be carried out. The loss of trees on the adjoining land could have a significant effect on the amenity of Mr MacBeath’s property, but noise and air quality would not be affected to any significant degree.

If a 2m noise barrier was erected, as proposed, the predicted noise level at Mr MacBeath’s property in 2025 would be about 8dB(A) less than at present. This would result in a substantial benefit. I can find no evidence of Mr MacBeath and his family having been treated unfairly in respect of the noise mitigation measures proposed.

Stewart Homes, land at Castlecary

The land within the draft CPO would be required for grouting works beneath the surface of the ground, and for the construction of noise attenuation bunds.

As stated above in respect of Mr MacBeath’s objection, the proposed motorway would be aligned some 15m to the south-east of the existing A80 at this location, away from the houses in Castlecary, and towards Castlecary Glen. Re-aligning it further south-east would necessitate substantial earthworks, and an increased impact on the environmentally sensitive Castlecary Glen.

Mrs Buchanan, Woodend Cottage, Castlecary

The land within the draft CPO would be required for the construction of drainage and attenuation pipes associated with the proposed motorway. The TRA now proposes that Plots 825 and 826 be amended to permanent servitude plots at Made Order stage.

There does not appear to be any practical alternative way of routing the pipes.

The proposals would necessitate the removal of a number of trees. Access to Woodend Cottage (and to another property, Woodneuk Cottage) would be maintained during the works and thereafter. It is unlikely that there would be any significant long terms impacts in terms of noise or air pollution.
Mr & Mrs Neilson, 6A North Road; Mr & Mrs Mooney, 6 North Road; and Mr & Mrs Dursin, 4 North Road, Condorrat

5.82 The land within the draft CPO would be required in order to construct a temporary bridge adjacent to the North Road overbridge which would be replaced. It is intended that the land would be reinstated and returned to the owners on completion of the works, which are expected to last 6-8 months. However the Scottish Executive would probably wish to retain a right of access to a small part of Plot 309 to allow entry for maintenance of the new bridge abutment.

5.83 Some trees were recently felled to permit the construction of a noise barrier associated with the Auchenkilns junction improvement scheme. Further trees would have to be felled to facilitate the reconstruction of the overbridge.

5.84 The residents’ amenity would be temporarily adversely affected by the works, and, over a longer period, by the loss of trees. Access to the residents’ properties would be maintained during the works, but there would be some temporary disruption.

Mr & Mrs Gregg, North Road Cottage, North Road, Condorrat

5.85 The land within the draft CPO would be required to create a safety zone during the demolition and reconstruction of the North Road overbridge. The zone would be delineated by a movable fence for a maximum total period of 6 weeks. The fence would be erected and moved back as required. The plot would be returned to Mr & Mrs Gregg on completion of the works.

5.86 It would be necessary to move the fence to allow large vehicles to gain access to the parking area next to the house. It should be possible to do this without causing serious inconvenience to Mr & Mrs Gregg or the contractor.

5.87 It seems unlikely that the works would result in damage to the property or to vehicles parked there.

5.88 Rebuilding the overbridge further east, away from Mr & Mrs Gregg’s property, would be expensive, and it would have adverse impacts on other properties. I consider that it would be impractical.

Mr & Mrs Merrick, Inglenenk, No 3 Eastfield Holdings, Cumbernauld

5.89 The land within the draft CPO would be required for the removal of peat beneath the proposed scheme, for drainage works, and for the construction of a new driveway for Mr & Mrs Merrick’s house. It is intended that most of the land would be returned to Mr & Mrs Merrick on completion of the scheme.

5.90 A direct access from the proposed motorway would be contrary to Scottish Executive policy, and it would be dangerous. The proposed new access from Old Glasgow Road would be lit, and it would be designed to deter fast driving. It would be much more suitable from a road safety point of view. The proposed parking at Cumbernauld Football Club’s grounds would make the blockage of Old Glasgow Road unlikely.
5.91 With the proposed mitigation, noise levels would be likely to be significantly lower than at present. Air quality would not change significantly. The proposed replacement planting would, over time, result in a better quality of roadside vegetation.

5.92 The contractor would be required to maintain an outfall from the septic tank, and to intercept drains and ditches.

**Mr & Mrs Cassidy, Seafar, Eastfield, Cumbernauld**

5.93 The land within the draft CPO would be required for the removal of peat beneath the proposed scheme, for drainage works, and for the construction of a new access road to the houses at Eastfield Holdings. It is intended that part of the land would be returned to Mr & Mrs Cassidy on completion of the scheme.

5.94 It would not be practical to realign the proposed motorway further north at this location.

5.95 A direct access from the proposed motorway would be dangerous. The proposed new access from Old Glasgow Road would be lit, and it would be designed to deter fast driving. It would be much more suitable from a road safety point of view. The proposed parking at Cumbernauld Football Club’s grounds would make the blockage of Old Glasgow Road unlikely.

5.96 The proposals would result in the loss of a substantial area of garden ground and woodland occupied by Mr & Mrs Cassidy. Other substantial parts of the curtilage would be unaffected. The proposed planting would, in time, help to compensate for the loss of existing woodland.

5.97 Mr & Mrs Cassidy’s house is not at such a high elevation relative to the road as to render the proposed noise barrier ineffective. It therefore seems likely that noise levels would be significantly lower than at present. Air quality would not change significantly.

5.98 The contractor would be required to maintain an outfall from the septic tank, and to intercept drains and ditches.

**Mr & Mrs Harkin, Onich Cottage, Eastfield, Cumbernauld**

5.99 The land within the draft CPO would be required for the removal of peat. The plot would be returned to Mr & Mrs Harkin on completion of the scheme.

5.100 It would not be practical to realign the proposed motorway further south at this location.

5.101 Mr Harkin’s pigeon loft would be relocated nearby for the duration of the works, and security fencing would be erected to contain Mr & Mrs Harkin’s dogs and hens. These arrangements should provide adequate protection for their birds and animals.

5.102 The proposed noise barrier would be located close to the carriageway, and it would provide some noise mitigation.
5.103 The contractor would be required to maintain an outfall from the septic tank. If the septic tank had to be relocated, this would again be the responsibility of the contractor.

**Mr Brown, South Garngrew Farm, Castlecary**

5.104 The land within the draft CPO would be required for the construction of the M80 earthworks, whether or not the adjoining land to the east was developed for housing.

5.105 The TRA does not intend to design the earthworks in order to achieve noise attenuation on the adjoining land to the east, for which Mr Brown hopes to obtain planning permission for residential development.

5.106 Residential development on that site would be contrary to the extant local plan. At the end of July 2005, Falkirk Council had no outstanding planning applications for development there. If these circumstances do not change, there would be no need to provide noise bunds or barriers on the CPO plot. The proposal to plant the slopes adjoining the motorway would be appropriate.

5.107 On the other hand, if planning permission was granted for residential development there, it would be appropriate to take account of that in the design of the earthworks.

**Mr & Mrs Sheret, 57 Glenview Avenue, Banknock, Bonnybridge**

5.108 The land within the draft CPO would be required to enable the Glenview Avenue overbridge to be rebuilt, and to construct a temporary replacement driveway for Mr & Mrs Sheret’s property. The TRA now proposes that only part of the original Plot 847 would be acquired (Plan No BTI0005242/PH2/WD/63, in TRA 35). On completion of the works, the land would be returned to Mr & Mrs Sheret. However the Scottish Executive would wish to retain a right of access to part of the plot to allow maintenance of the new bridge (Plan No BTI0005254/PH2/WD/64, in TRA 35).

5.109 The lower end of the driveway would be temporarily realigned. Its gradient would be only marginally steeper than at present.

5.110 A small part of the garden would be affected. A few shrubs would have to be removed, and a short section of hedge might have to be removed. Some trees outwith Mr & Mrs Sheret’s property, on the slope down to the A80, would have to be removed. There would be a temporary adverse impact on the amenity and privacy of the property.

5.111 It is proposed to erect a noise barrier alongside the motorway. It is likely that the noise level at Mr & Mrs Sheret’s property would be significantly lower than at present.

5.112 Mr & Mrs Sheret state that the CPO would interfere with their rights under the Human Rights Act 1998. This is primarily a matter for the Scottish Ministers and their legal advisers. However, I consider that the reduced area of land which the TRA now proposes to acquire would be required for the construction of the proposed scheme.
Mrs Khan, Greenlea Cottage, Lindsaybeg Road, Chryston

5.113 It is proposed that Lindsaybeg Road would be realigned to facilitate its crossing over the motorway. The land within the draft CPO would be required to enable the private access road to Peathill Farm to be tied into the realigned Lindsaybeg Road.

5.114 The motorway would be built about 250m north of Greenlea Cottage. It is predicted that traffic on Lindsaybeg Road would fall once the motorway opened. Traffic generated noise and air pollution at Greenlea Cottage would be likely to be less than at present.

5.115 Mr & Mrs Khan are presently able to access their property, through informal agreement, by way of the road to Peathill Farm, as well as by a direct access from Lindsaybeg Road. The TRA envisages that the direct access would be extended to the realigned Lindsaybeg Road. This would be acceptable in principle to NLC.

5.116 The realignment of Lindsaybeg Road, and the provision of footways along a section of the road, would improve safety for all road users.

Mr Henderson, land at Davidston Mains and Cleddans Farms, Moodiesburn

5.117 The land within the draft CPO would be required for the construction of the scheme, including: the motorway itself; the realigned Lindsaybeg Road; the realigned Garnkirk and Bothlin Burns; a retention pond; noise bunds; and various access tracks.

5.118 Mr Henderson farms a total of 404 ha. Part of this land is near Milngavie, and the balance is located to the north-west of Moodiesburn. The CPO plots extend to about 15.5 ha, which equates to just under 4% of the total farm area.

5.119 The scheme would also result in severance. Agreement in principle has been reached on some, but not all, of the mitigation and accommodation works that might be appropriate.

5.120 With mitigation, the significance of the residual impact has been assessed as slight.

Mr O’Donnell, land at Braeside Farm, Moodiesburn

5.121 The land within the draft CPO would be required for the construction of the scheme, including: the motorway itself; the realigned Auchengeich Road; a diverted right of way; a noise bund; and ground shaping.

5.122 Mr O’Donnell farms some 134 ha at Braeside, and he rents a further 81 ha on a seasonal basis. The CPO plots extend to about 15.5 ha, which equates to almost 12% of the farm area. Just over 3 ha would be returned to Mr O’Donnell after re-grading. Total permanent loss would extend to just over 12 ha, which is just over 9% of the farm area.

5.123 The scheme would also result in the severance of about 11 ha of land from the remainder of the farm. Access to this area from the farm steading would necessitate a journey, mainly on public roads, of just under 3km. Agreement in principle has been reached on much of the mitigation and accommodation works that might be appropriate.
5.124 With mitigation, the significance of the residual impact has been assessed as moderate.

Mr & Mrs Stewart, Mollinhillhead Farm, Mollinsburn

5.125 The land within the draft CPOs would be required for the construction of the proposed Mollinsburn interchange and associated side roads. The TRA originally proposed to acquire Plots 1307 and 1311 to allow the diversion of a gas pipeline, but it now proposed that this work be undertaken using a wayleave. Accordingly, the TRA now proposes to delete Plots 1307 and 1311 from the draft Moodiesburn Bypass CPO at Made Order stage.

5.126 Mr & Mrs Stewart farm some 57 ha at Mollinhillhead, and they rent another 40 ha on a seasonal basis. The CPO plots (excluding Plots 1307 and 1311) extend to about 3.3 ha, which equates to just under 6% of the farm area and about 3.5% of the total farmed area.

5.127 It would not be practical to realign the proposed interchange further north at this location.

5.128 The minimum distance between the proposed Mollinsburn interchange and Mollinhillhead farmhouse would be less than at present, but the house’s separation from the proposed M80 would be greater than its present separation from the A80. Noise levels are predicted to fall, and air pollution levels are predicted to fall or remain unchanged, following the opening of the proposed scheme.

5.129 Agreement in principle has been reached on much of the mitigation and accommodation works that might be appropriate.

5.130 With mitigation, the significance of the residual impact has been assessed as moderate/substantial.

Mr Jackson, Badenheath Park Farm, Mollinsburn

5.131 The land within the draft CPOs would be required for the construction of a retention pond for the scheme, and an access to the pond, and for associated environmental mitigation measures.

5.132 Mr Jackson farms 31.6 ha at Badenheath Park Farm. The CPO plots extend to about 1.7 ha, which equates to about 5.5% of the farm area.

5.133 Agreement in principle has been reached on the mitigation and accommodation works that might be appropriate.

5.134 The access road would be used only lightly, for periodic maintenance. Visibility at the junction with Main Road, Condorrat would be reasonable. Its use would be unlikely to create any significant problems for traffic flows or road safety.

5.135 With mitigation, the significance of the residual impacts has been assessed as moderate.
Mr P Weir & Son, Castlecary Mill Farm, Banknock, Bonnybridge

5.136 The land within the draft CPO would be required for the construction of the motorway, a retention pond and a public cycle track.

5.137 The TRA now proposes to reduce the size of Plot 828, by deleting that portion of it which would be used for the installation of drainage pipes. That portion would be amended at Made Order stage to form a drainage servitude plot, to be identified as Plot 879. This would still enable the pipes to be installed and maintained.

5.138 The TRA now proposes to reduce the size of Plot 834. This follows decisions to realign the proposed public cycle way, and to construct the proposed private access track on land that would remain in the ownership of Messrs Weir. It would be undesirable to further reduce the size of Plot 834 by constructing the cycle way further south-west, as this would necessitate the removal of some mature trees along the edge of the B816.

5.139 Messrs Weir farm some 71 ha at Castlecary Mill Farm. The CPO plots, as amended in accordance with the TRA’s current proposals, extend to about 1.6 ha, which equates to just over 2% of the farm area.

5.140 Agreement in principle has been reached on the mitigation and accommodation works that might be appropriate.

5.141 With mitigation, the significance of the residual impacts has been assessed as slight/moderate.
CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

6.1 There is a strong case for constructing a motorway between Stepps and Haggs. Various alternatives have been suggested and examined over many years. The proposed scheme accords with Ministerial decisions and policies announced over the past 9 or so years. A substantially different route or a larger scale of upgrade, with additional lanes, would not accord with these announcements.

6.2 The proposed scheme would meet all its objectives – in respect of environment, safety, economy, integration and accessibility. It would have a range of environmental effects, most of which would be mitigated to a considerable degree. None of the residual effects would be so severe as to undermine the logic of the route selection. In reaching these conclusions, I have taken into account all the relevant environmental information that has been provided, including that contained in the environmental statement.

6.3 Much of the opposition to the scheme was based on the argument that there exists a better alternative – the Kelvin Valley Route. I disagree with that view. A KVR motorway would have some, mainly operational, benefits over the proposed scheme. However it would have major environmental and, probably, cost disadvantages.

6.4 I am satisfied that the land within the draft amended CPOs would be required for the completion of the project. I am also satisfied that the other draft Orders and Schemes, as amended in some cases, are appropriate.

Recommendations

6.5 I therefore recommend that, provided the Scottish Ministers are satisfied the proposals would not breach the Human Rights Act 1998, the Orders and Schemes be confirmed, subject to the amendments set out, in full, in TRA 215 and 216. In summary, these amendments are as follows:

The M80/M73 Special Roads (Moodiesburn Bypass) (Side Roads) Order 200
- Alterations and additions to text in Part 5, and associated plans

The M80/M73 Special Roads (Moodiesburn Bypass) (Extinguishment of Public Rights of Way) Order 200
- Alterations to route of right of way

The A80 Trunk Road (Auchenkilns to Haggs) (Side Roads) Order 200
- Alteration to route of proposed cycle track

The M80 Special Road (Auchenkilns to Haggs) Compulsory Purchase Order 200
- Plots 649 and 659 to be removed
• Plots 834 and 847 to be reduced
• Plots 825 and 826 to be amended to permanent servitude
• Plot 828 to be split, with part of plot amended to permanent servitude

The M80/M73 Special Roads (Moodiesburn Bypass) Compulsory Purchase Order 200
• Plots 1003, 1307, 1311, 1503, 1504, 1505, 1514, 1515, 1516 and 1601 to be removed
• Plots 1001, 1020, 1210 and 1212 to be reduced

David N Gordon
Principal Reporter

February 2006
APPENDIX 1

PARTIES WHO APPEARED AT INQUIRY

For the Scottish Executive – Enterprise, Transport & Lifelong Learning Department, Transport Group, Trunk Roads – Design and Construction Division (the trunk roads authority)

Mr Colin Campbell QC, instructed by Shepherd + Wedderburn, Solicitors

Witnesses:

- Mr James B Vance BSc(Hons) CEng MICE, Principal Engineer, Scottish Executive, and Scottish Executive’s Project Director
- Mr Robert Cairnduff BSc(Hons) CEng MICE MIHT, Divisional Director, Infrastructure Consultancy Business Centre, Jacobs Babtie, and Project Director
- Mr Peter Semens DipLD MLI, Proprietor, Landscape and Environmental Design and Assessment (LEDA)
- Mr Alan Duff BSc CEng MICE MIHT, Business Centre Director, Infrastructure Consultancy Business Centre, Jacobs Babtie
- Mr Alan Gillies BEng(Hons) CEng MICE, Project Manager for M80 Project, and Technical Director, Infrastructure Consultancy Business Centre, Jacobs Babtie
- Mr Ted Keegan MSc MRTPI MILT, Technical Director, Jacobs Babtie
- Mr John M Smith DipTP MRTPI DMS MInstMgt MIWM, Divisional Director, Jacobs Babtie
- Mr Howard Clough BSc MSc CGeol, Principal Hydrogeologist, Jacobs Babtie
- Mr Ronald Falconer BSc(Hons) MSc CEng CEnv CSci FICE FCIWEM, Senior Consultant (Rivers and Marine), Jacobs Babtie
- Mr Graham Kerr BSc(Hons), Senior Business Consultant, SAC Rural Business Unit
- Mr Mark Lancaster BA(Hons) MLI, Principal Landscape Architect, Jacobs Babtie
- Professor Duncan Laxen BSc MSc PhD, Managing Director, Air Quality Consultants Ltd
- Mr Andrew Whitfield BA CertCM MIEEM, Principal Ecologist, Jacobs Babtie
- Ms Margaret Botham BA(Hons) BArch DipUD MRTPI, Operations Manager, Lanarkshire Sector, Strathclyde & Ayrshire Area, Scottish Natural Heritage
Ms Lily Linge MA(Hons) FSA, Head of Historic Environmental Planning, Heritage Policy Group, Historic Scotland

Dr Bernadette McKell BSc MSc PhD CEng MIOA, Partner, Hamilton & McGregor Architects

Dr Alison Searl BSc(Hons) MEnvS PhD, Director of Environmental Consultancy, Institute of Occupational Medicine (IOM)

For Cumbernauld Community Councils’ Umbrella Group

Mr Bill K MacKay BSc CE (and former FICE and FIHT) and Mr J David T Cowling FRIAS RIBA MRTPI(rtd) FRSA

Witnesses:

Mr J David T Cowling FRIAS RIBA MRTPI(rtd) FRSA

Mr Mike Ogden, Vice-chairman, Craigmarloch Community Council

Mr John Freebairn BSc CEng MICE MIHT

Mr Robert Johnstone

Mr Nick Dekker

Statutory objector

Mr Albert MacBeath, Glenside Cottage, Castlecary

Other objectors

Councillor Gordon S Murray, North Lanarkshire Council member for Westerwood, Carrickstone & Dullatur

Mrs Rosemary McKenna CBE MP, Member of Parliament for Cumbernauld, Kilsyth & Kirkintilloch East

Mr Sam Mitchell

Mr Jim McKenna
### Trunk roads authority’s documents

#### Core Documents

<table>
<thead>
<tr>
<th>TRA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 1</td>
<td>Ministerial announcement of 13 December 2002 by Lewis MacDonald – Auchenkilns to proceed without a public local inquiry.</td>
</tr>
<tr>
<td>TRA 2</td>
<td>Ministerial announcement of 22 January 2003 by Iain Gray – Limited upgrade of A80.</td>
</tr>
<tr>
<td>TRA 3</td>
<td>Ministerial announcement of 21 March 2002 by Wendy Alexander – Commitment to completion of M80/traffic stabilisation.</td>
</tr>
<tr>
<td>TRA 4</td>
<td>Ministerial announcement of 9 September 2003 by Nicol Stephen – Award of construction contract for Auchenkilns.</td>
</tr>
<tr>
<td>TRA 5</td>
<td>Ministerial announcement of 19 December 2003 by Nicol Stephen – Publication of draft orders for Phase 1.</td>
</tr>
</tbody>
</table>

#### General legislation

<table>
<thead>
<tr>
<th>TRA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 7</td>
<td>The Roads (Scotland) Act 1984</td>
</tr>
<tr>
<td>TRA 8</td>
<td>The Environmental Impact Assessment (Scotland) Regulations 1999</td>
</tr>
</tbody>
</table>

#### General (transportation / guidance)

<table>
<thead>
<tr>
<th>TRA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 9</td>
<td>Travel Choices For Scotland, 1998</td>
</tr>
<tr>
<td>TRA 10</td>
<td>Travel Choices for Scotland – Strategic Roads Review, 1999</td>
</tr>
<tr>
<td>TRA 12</td>
<td>Scotland’s Transport – Delivering Improvements, Scottish Executive, 2002</td>
</tr>
<tr>
<td>TRA 14</td>
<td>Central Scotland Transport Corridor Studies Decisions, January 2003</td>
</tr>
</tbody>
</table>
### Core Documents

#### M80 Stepps to Haggs Draft Orders

<table>
<thead>
<tr>
<th>TRA 15</th>
<th>The M80/M73 Special Roads (Mollinsburn to Auchenkilns) Scheme 200</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 16</td>
<td>The A80 Trunk Road (Mollinsburn to Auchenkilns) (Prohibition of Specified Turns) Order 200</td>
</tr>
<tr>
<td>TRA 17</td>
<td>The A80 Trunk Road (Mollinsburn to Auchenkilns) (Side Roads) Order 200</td>
</tr>
<tr>
<td>TRA 18</td>
<td>The M80/M73 Special Roads (Mollinsburn to Auchenkilns) Compulsory Purchase Order 200</td>
</tr>
<tr>
<td>TRA 19</td>
<td>The A80 Trunk Road (Auchenkilns to Haggs) (Side Roads) Order</td>
</tr>
<tr>
<td>TRA 20</td>
<td>The M80 Special Road (Auchenkilns to Haggs) Scheme 200</td>
</tr>
<tr>
<td>TRA 21</td>
<td>The M80 Special Road (Auchenkilns to Haggs) Appropriation Order 200</td>
</tr>
<tr>
<td>TRA 22</td>
<td>The M80/M73 (Moodiesburn Bypass) Special Roads (Extinguishment of Public Rights of Way) Order 200</td>
</tr>
<tr>
<td>TRA 23</td>
<td>The M80/M73 Special Roads (Moodiesburn Bypass) (Side Roads) Order 200</td>
</tr>
<tr>
<td>TRA 24</td>
<td>The M80/M73 Special Roads (Moodiesburn Bypass) Scheme 200</td>
</tr>
<tr>
<td>TRA 25</td>
<td>The M80/A80 Trunk Roads (Stepps to Moodiesburn) Detrunking Order 200</td>
</tr>
<tr>
<td>TRA 26</td>
<td>The Stepps Bypass (M80) (City of Glasgow District Boundary to Crow Wood) Special Road (Variation) Scheme 200</td>
</tr>
<tr>
<td>TRA 27</td>
<td>Stepps Bypass (M80) (City of Glasgow District Boundary to Crow Wood) (Connecting Roads) Special Road (Revocation) Scheme 200</td>
</tr>
<tr>
<td>TRA 28</td>
<td>The M80 Special Road (Mollinsburn to Auchenkilns) Appropriation Order 200</td>
</tr>
<tr>
<td>TRA 29</td>
<td>The M80 Special Roads (Auchenkilns to Haggs) Compulsory Purchase Order 200</td>
</tr>
<tr>
<td>TRA 30</td>
<td>The M80/M73 Special Roads (Moodiesburn Bypass) Compulsory Purchase Order 200</td>
</tr>
</tbody>
</table>

#### General

<table>
<thead>
<tr>
<th>TRA 31</th>
<th>M80 Stepps to Haggs, Summary of Objections to Draft Orders, 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 32</td>
<td>M80 Stepps to Haggs, Non-Statutory Objection Letters and Responses, Volumes 1 – 12</td>
</tr>
<tr>
<td>TRA 33</td>
<td>M80 Stepps to Haggs, Non-Statutory Comment Letters and Responses, Volume 13</td>
</tr>
<tr>
<td>TRA 34</td>
<td>M80 Stepps to Haggs, Non-Statutory Support Letters and Responses, Volume 14</td>
</tr>
<tr>
<td>Core Documents</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>TRA 35  M80 Stepps to Haggs Statutory Objectors’ Correspondence, Volume 15 – 17</td>
<td></td>
</tr>
<tr>
<td>TRA 36  Scottish Office booklet – A Guide to the Compulsory Purchase Process and Compensation in relation to Road Schemes for which the Ministers are the Roads Authority</td>
<td></td>
</tr>
<tr>
<td>TRA 37  Archive Search of 1972 New Town Extension PLI</td>
<td></td>
</tr>
</tbody>
</table>

**Planning**

<p>| TRA 38  SPP 1: The Planning System                                            |
| TRA 39  SPP 2: Economic Development                                           |
| TRA 40  NPPG 5: Archaeology and Planning                                      |
| TRA 41  SPP 7: Planning and Flooding                                         |
| TRA 42  NPPG 9: The Provision of Roadside Facilities on Motorways and Other Trunk Roads in Scotland |
| TRA 43  NPPG 11: Sport, Physical Recreation and Open Space                  |
| TRA 44  NPPG 14: Natural Heritage                                           |
| TRA 45  SPP 15: Rural Development                                          |
| TRA 46  NPPG 17: Transport and Planning                                     |
| TRA 47  SPP 17: Planning for Transport                                      |
| TRA 48  NPPG 18: Planning and the Historic Environment                     |
| TRA 49  SPP 21: Green Belts: Consultation Draft                             |
| TRA 50  National Planning Framework for Scotland 2004                      |
| TRA 51  PAN 56: Planning and Noise                                          |
| TRA 52  PAN 57: Transport and Planning                                      |
| TRA 53  PAN 58: Environmental Impact Assessment                             |
| TRA 54  PAN 65: Planning and Open Space                                     |
| TRA 55  PAN 61: Planning and Sustainable Urban Drainage Systems             |</p>
<table>
<thead>
<tr>
<th>Core Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 56 PAN 75: Planning for Transport</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Development plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 57 The Glasgow and Clyde Valley Joint Structure Plan 2000</td>
</tr>
<tr>
<td>TRA 58 The Glasgow and Clyde Valley Joint Structure Plan Consultative Draft Alteration 2005</td>
</tr>
<tr>
<td>TRA 59 The Strathkelvin District (Southern Area) Local Plan 1983</td>
</tr>
<tr>
<td>TRA 60 The Strathkelvin District (Kirkintilloch Area) Local Plan 1982</td>
</tr>
<tr>
<td>TRA 61 The Monklands District Local Plan 1995</td>
</tr>
<tr>
<td>TRA 62 North Lanarkshire Council Finalised Northern Corridor Local Plan 2000 (Including Modifications to Finalised Draft 2003)</td>
</tr>
<tr>
<td>TRA 63 Cumbernauld Local Plan 1993, North Lanarkshire Council</td>
</tr>
<tr>
<td>TRA 64 East Dunbartonshire Council Local Plan 2005 (adopted February 2005)</td>
</tr>
<tr>
<td>TRA 65 Falkirk Council Structure Plan 2002</td>
</tr>
<tr>
<td>TRA 67 Falkirk Council Rural Local Plan 1994</td>
</tr>
<tr>
<td>TRA 68 Bonnybridge and Banknock Local Plan 1982</td>
</tr>
<tr>
<td>TRA 69 Falkirk Council Bonnybridge and Banknock Local Plan Second Alteration 1995</td>
</tr>
<tr>
<td>TRA 70 Falkirk Council Finalised Draft Local Plan 2005 (awaiting approval of Structure Plan before placed on deposit for formal consultation)</td>
</tr>
<tr>
<td>TRA 71 The Forth and Clyde Canal Local Plan 1996</td>
</tr>
<tr>
<td>TRA 72 Strathclyde Structure Plan 1995</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M80 Stepps to Haggs historical documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 73 M80 Feasibility Study Joint Report 1979</td>
</tr>
<tr>
<td>TRA 74 M80 Report of Further Investigations 1982</td>
</tr>
<tr>
<td>TRA 75 M80 Motorway Stepps to Haggs Report on Scheme F3a45 + 24</td>
</tr>
<tr>
<td>Reference</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>TRA 77</td>
</tr>
<tr>
<td>TRA 78</td>
</tr>
<tr>
<td>TRA 79</td>
</tr>
<tr>
<td>TRA 80</td>
</tr>
<tr>
<td>TRA 81</td>
</tr>
<tr>
<td>TRA 83</td>
</tr>
<tr>
<td>TRA 84</td>
</tr>
<tr>
<td>TRA 85</td>
</tr>
<tr>
<td>TRA 86</td>
</tr>
<tr>
<td>TRA 87</td>
</tr>
<tr>
<td>TRA 88</td>
</tr>
<tr>
<td>TRA 89</td>
</tr>
<tr>
<td>TRA 90</td>
</tr>
<tr>
<td>TRA 91</td>
</tr>
<tr>
<td>TRA 92</td>
</tr>
<tr>
<td>TRA 93</td>
</tr>
<tr>
<td>TRA 94</td>
</tr>
<tr>
<td>TRA 95</td>
</tr>
<tr>
<td>TRA 96</td>
</tr>
<tr>
<td>TRA 97</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>TRA 98</td>
</tr>
<tr>
<td>TRA 99</td>
</tr>
<tr>
<td>TRA 100</td>
</tr>
<tr>
<td>TRA 101</td>
</tr>
<tr>
<td>TRA 102</td>
</tr>
</tbody>
</table>

| TRA 106 | Landscape & Visual Assessment Supplementary Guidance, Scottish Executive, 2002 (LVASG) |
| TRA 108 | Glasgow and Clyde Valley Landscape Character Assessment, published by Scottish Natural Heritage (SNH), 1999 (GCVLA) |
| TRA 109 | Central Region Landscape Character Assessment, published by Scottish Natural Heritage (SNH), 1999 (CRLCA) |

<p>| TRA 110 | The Air Quality Strategy for England, Scotland and Northern Ireland, 2000 |
| TRA 111 | The Air Quality Strategy for England, Scotland and Northern Ireland, Addendum 2003 |
| TRA 112 | The Air Quality (Scotland) Regulations 2000 |
| TRA 113 | The Air Quality (Scotland) Amendment Regulations 2002 |
| TRA 114 | COMEAP (1998) Quantification of the effects of air pollution on health in the United Kingdom, Department of Health’s Committee on the Medical Effects of Air Pollutants, HMSO, Chapters on nitrogen dioxide and particles |</p>
<table>
<thead>
<tr>
<th>Core Documents</th>
<th></th>
</tr>
</thead>
</table>

**Environmental impacts – flooding, drainage, climate change and water quality**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 118</td>
<td>M80 Stepps to Haggs Luggie Water Flood Risk Assessment, September 2004, Babtie Group, The Scottish Executive Enterprise, Transport &amp; Lifelong Learning Department</td>
</tr>
</tbody>
</table>

**Environmental impacts – cultural heritage**

<table>
<thead>
<tr>
<th>TRA 119</th>
<th>Historic Scotland, Framework Document, 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 120</td>
<td>(Not Used)</td>
</tr>
</tbody>
</table>

**Environmental Impacts - Ecology**

<table>
<thead>
<tr>
<th>TRA 121</th>
<th>PGN 93/1: Sustainability and the Natural Heritage: the SNH approach, SNH 1993 (Including Policy Summary 2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 122</td>
<td>Policy statement 02/01: Sustainability and the Natural Heritage: the SNH approach, SNH 2001</td>
</tr>
<tr>
<td>TRA 123</td>
<td>PGN 94/2: Transport, SNH 1994</td>
</tr>
<tr>
<td>TRA 125</td>
<td>Planning forum extract, Drew Mackie Associates 1997</td>
</tr>
<tr>
<td>TRA 126</td>
<td>South West Region Board paper, 1997</td>
</tr>
<tr>
<td>TRA 127</td>
<td>A Statement of Intent Between Historic Scotland and Scottish Natural Heritage (1995)</td>
</tr>
<tr>
<td>TRA 128</td>
<td>SNH response to Scottish Executive, 23 December 2004</td>
</tr>
<tr>
<td>TRA 129</td>
<td>National Strategy Information Note 99/02: The International, European and UK Framework for Biodiversity</td>
</tr>
<tr>
<td>TRA 130</td>
<td>Nature Conservation (Scotland) Act 2004</td>
</tr>
<tr>
<td>TRA 131</td>
<td>The Assessment of Trunk Road Projects: Consultation process between the National Roads Directorate and SNH, Consultation Guidance Note: Draft for consultation, September 1996</td>
</tr>
</tbody>
</table>
### Core Documents

| TRA 132 | South-West Region Board paper SW 92.91: proposed M80 motorway Stepps-Haggs |
| TRA 133 | Minutes of SW Board meeting, early 1993 |
| TRA 134 | Scottish Natural Heritage’s Strategy for the Millennium Link, unpublished paper, 2000 |
| TRA 135 | The Environmental Assessment of Trunk Road Projects: Protocol for the consultation process between the Scottish Executive Development Department, Trunk Road Design & Construction Division and Scottish Natural Heritage, Appendix 2, issued by SEDD, 2000, (Unpublished) |
| TRA 207 | Kilsyth Local Plan (1998) |

### Additional core documents

| TRA 209 | Transport Indicators for Scotland |
| TRA 210 | Control of Pollution Act 1974 (Extracts) |

### Specific Documents

#### Traffic and economics

| TRA 137 | M80 Stepps to Haggs - Accident Analysis Report |
| TRA 138 | M80 Stepps to Haggs - Traffic and Demand Management Working Paper |
| TRA 139 | M80 Stepps to Haggs - Local Model Validation Report |
| TRA 140 | M80 Stepps to Haggs - A Review of the Effects of Traffic Management at Auchenkilns. |
| TRA 141 | M80 Stepps to Haggs - Transport Model for Scotland - Impact on Scheme - Technical Note |

#### Scheme design and assessment

<p>| TRA 143 | M80 Stepps to Haggs Do-Minimum Engineering Assessment |
| TRA 144 | M80 Stepps to Haggs Stage 2 Review 2005, Objection Response Updating the 1997 Stage 2 Report |</p>
<table>
<thead>
<tr>
<th>Document ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 145</td>
<td>M80 Stepps to Haggs Upgrade Stage 1 Road Safety Audit</td>
</tr>
<tr>
<td>TRA 146</td>
<td>M80 Stepps to Haggs Upgrade Stage 1 Traffic Management Road Safety Audit</td>
</tr>
<tr>
<td>TRA 147</td>
<td>M80 Stepps to Haggs Cycle Audit</td>
</tr>
<tr>
<td>TRA 148</td>
<td>Hornshill Junction Photomontage</td>
</tr>
<tr>
<td>TRA 149</td>
<td>Mollinsburn Interchange Photomontage</td>
</tr>
<tr>
<td>TRA 150</td>
<td>Castlecary Junction, Bus Gate Schematics</td>
</tr>
<tr>
<td>TRA 151</td>
<td>Scheme Layout at Castlecary Viaduct and Junction</td>
</tr>
<tr>
<td>TRA 152</td>
<td>M80 Stepps to Haggs, Traffic Management Report</td>
</tr>
<tr>
<td>TRA 153</td>
<td>Scottish Natural Heritage (21 February 2003, Consultation Response) Scottish Development Department, M80 Stepps to Haggs, Mollins Roman Fort.</td>
</tr>
<tr>
<td>TRA 154</td>
<td>Safety Performance of Traffic Management at Major Road Works (extract)</td>
</tr>
<tr>
<td>TRA 155</td>
<td>M80 Stepps to Haggs - Scheme Objective Appraisal Report July 2005</td>
</tr>
<tr>
<td>TRA 156</td>
<td>M80 Stepps to Haggs Departures Report 2005 Volume 1</td>
</tr>
<tr>
<td>TRA 157</td>
<td>M80 Stepps to Haggs Departures Report 2005 Volume 2</td>
</tr>
</tbody>
</table>

**Planning**

<table>
<thead>
<tr>
<th>Document ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 158</td>
<td>North Lanarkshire Council – A80 Upgrade Proposals February 2004</td>
</tr>
<tr>
<td>TRA 159</td>
<td>North Lanarkshire Council – A80 Upgrade Proposals January 2005</td>
</tr>
<tr>
<td>TRA 160</td>
<td>M80 Steps to Haggs – Policy Impact Summary Tables – Table 1: Stepps to Mollinsburn</td>
</tr>
<tr>
<td>TRA 161</td>
<td>M80 Steps to Haggs – Policy Impact Summary Tables – Table 2: Mollinsburn to Auchenkilns</td>
</tr>
<tr>
<td>TRA 162</td>
<td>M80 Steps to Haggs – Policy Impact Summary Tables – Table 3: Auchenkilns to Haggs</td>
</tr>
</tbody>
</table>

**Environmental impacts – noise**

<table>
<thead>
<tr>
<th>Document ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRA 163</td>
<td>A glossary of acoustical terminology</td>
</tr>
<tr>
<td>TRA 164</td>
<td>Revised Castlecary Noise Levels (2005)</td>
</tr>
<tr>
<td>Specific Documents</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Environmental impacts – landscape and visual</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Environmental impacts – air quality</strong></td>
<td></td>
</tr>
<tr>
<td>TRA 166 Extract from Local Air Quality Management – Technical Guidance LAQM TG (03)</td>
<td></td>
</tr>
<tr>
<td>TRA 167 The relationship between ambient concentrations and distance from a road.</td>
<td></td>
</tr>
<tr>
<td>TRA 168 The relationship between absolute concentrations and relative changes in concentration</td>
<td></td>
</tr>
<tr>
<td>TRA 169 Total emissions from the road network in various years, with and without the proposed scheme</td>
<td></td>
</tr>
<tr>
<td>TRA 170 Effects of congestion on emissions</td>
<td></td>
</tr>
<tr>
<td>TRA 171 TAG assessment summary</td>
<td></td>
</tr>
<tr>
<td>TRA 172 Local TAG assessment</td>
<td></td>
</tr>
<tr>
<td>Transport Analysis Guidance (Unit 3.3.3) 2004</td>
<td></td>
</tr>
<tr>
<td>TRA 173 Local TAG assessment</td>
<td></td>
</tr>
<tr>
<td>Transport Analysis Guidance (Unit 3.3.4) 2004</td>
<td></td>
</tr>
<tr>
<td>TRA 174 Local TAG assessment</td>
<td></td>
</tr>
<tr>
<td>Transport Analysis Guidance (Unit 3.3.5) 2004</td>
<td></td>
</tr>
<tr>
<td><strong>Environmental impacts – flooding, drainage, climate change and water quality issues</strong></td>
<td></td>
</tr>
<tr>
<td>TRA 175 Methodology for calculation of floodplain storage displacement, M80 Stepps to Haggs PLI (Jacobs Babtie, June 2005)</td>
<td></td>
</tr>
<tr>
<td>TRA 176 Calculations of flood storage volume displaced for the Kelvin Valley Route and On-Line Route, M80 Stepps to Haggs PLI. (Jacobs Babtie, June 2005)</td>
<td></td>
</tr>
<tr>
<td>TRA 177 Water Quality Assessment of the On-Line Route M80 Stepps to Haggs PLI (Extract from Environmental Statement 2004)</td>
<td></td>
</tr>
<tr>
<td>TRA 178 Water Quality Assessment of the Kelvin Valley Route M80 Stepps to Haggs PLI (Extract from M80 Stepps to Haggs Stage 2 Review 2005)</td>
<td></td>
</tr>
<tr>
<td>TRA 179 Details of Specific Proposals for SUDS Retention Ponds M80 Stepps to Haggs PLI</td>
<td></td>
</tr>
<tr>
<td>TRA 180 SEPA letter to Jacobs Babtie of 3 June 2005</td>
<td></td>
</tr>
<tr>
<td>TRA 181 Letters of Objection relevant to Flooding, Drainage and Water Quality Issues</td>
<td></td>
</tr>
<tr>
<td>TRA 182 Centre for Ecology and Hydrology (CEH) Flood Extent Data</td>
<td></td>
</tr>
<tr>
<td>Specific Documents</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>TRA 183</strong> Map showing flow paths of river systems</td>
<td></td>
</tr>
<tr>
<td><strong>TRA 184</strong> Hulme et al (2002) Climate Change Scenarios for the United Kingdom:</td>
<td>The UKCIP02 Scientific Report, Tyndall Centre for Climate Change</td>
</tr>
<tr>
<td></td>
<td>Research, School of Environmental Sciences, University of East Anglia</td>
</tr>
<tr>
<td><strong>TRA 185</strong> Climate Change: Review of Levels of Protection Offered by Flood</td>
<td>Prevention Schemes UKCIP02 Update (2003) Final Report DJ Price &amp;</td>
</tr>
<tr>
<td></td>
<td>JE McKenna (Babtie Group 2003)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRA 187</strong> Alice Robson and Duncan Reed, Institute of Hydrology 1999, Flood</td>
<td>Estimation Handbook, Volume 3, Statistical procedures for flood</td>
</tr>
<tr>
<td></td>
<td>frequency estimation</td>
</tr>
<tr>
<td><strong>Environmental impacts – cultural heritage</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TRA 188</strong> Extracts from Castle Tioram report of public local inquiry, January</td>
<td>2002, and copy of decision letter, 12 February 2002</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRA 189</strong> Extracts from Rowallan Castle report of public local inquiry, December</td>
<td>2002, and copy of decision letter, 4 July 2003</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRA 190</strong> Historic Scotland statement to the 1996 M80 Stepps to Haggs Consultation</td>
<td>Forum</td>
</tr>
<tr>
<td><strong>TRA 191</strong> D J Breeze, Sonja Jilek, Andres Thiel, Frontiers of the Roman Empire,</td>
<td>Historic Scotland, UK; Deutsche Limeskommission, Germany 2005</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRA 192</strong> D J Breeze, The Antonine Wall: The North-West Frontier of the Roman</td>
<td>Empire, Proposed as a World Heritage Site, Historic Scotland &amp;</td>
</tr>
<tr>
<td></td>
<td>Empire, Proposed as a World Heritage Site, Historic Scotland &amp;</td>
</tr>
<tr>
<td></td>
<td>Royal Commission on the Ancient and Historical Monuments of</td>
</tr>
<tr>
<td></td>
<td>Scotland, 2005</td>
</tr>
<tr>
<td><strong>TRA 193</strong> Council of Europe, European Convention on the Protection of the</td>
<td>Archaeological Heritage (revised) 1992 (The Valletta Convention)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRA 194</strong> UNESCO 1972 Convention Concerning the Protection of the World Cultural</td>
<td>and Natural Heritage</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRA 196</strong> Scottish Executive 1998, New Appraisal Methodology (NAM) Detailed</td>
<td>Appraisal Forms Guidance: Forms B8 Heritage (extracts)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRA 197</strong> Newspaper extracts, Glasgow Herald and Scotsman, 15 June 2005</td>
<td></td>
</tr>
<tr>
<td><strong>TRA 198</strong> Summary of evidence for the location, extent and survival of the</td>
<td>Antonine Wall at Croy and Castlecary</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Environmental Impacts - agriculture and land use</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TRA 199</strong> Macaulay Land Use Research Institute – Land Capability for</td>
<td>Agriculture Map (Scale 1:50,000) – Glasgow, Sheet 64 (Extract</td>
</tr>
<tr>
<td></td>
<td>Grid Ref 6082: 8067)</td>
</tr>
</tbody>
</table>
## Specific Documents

### Health impacts

| TRA 203 | EPAQS (2001) Airborne Particles: What is the appropriate measurement on which to base a standard? Department for the Environment, Food and Rural Affairs and the Devolved Administrations Expert Panel on Air Quality Standards |
| TRA 204 | Knox EG (2005), Childhood cancers and atmospheric carcinogens, *Journal of Epidemiology and Community Health* 59:101-5 |
| TRA 206 | M80 Stepps to Haggs – Proposed CPO Amendments at Made Order Stage |

### Additional specific documents

| TRA 208 | Presentation of planning boundaries |
| TRA 211 | Working drawing BTI0005242/PH3/WD/63 |
| TRA 212 | Agreed joint statement between the Scottish Executive and the Cumbernauld Community Councils’ Umbrella Group |
| TRA 213 | Parliamentary Questions and Answers. |
| TRA 214 | Statutory objectors’ correspondence update (since TRA 35) |
| TRA 215 | Update note on proposed amendments to Compulsory Purchase Orders |

### Additional specific documents since start of PLI

| TRA 216 | Note of clarification to published draft Side Road Orders and Extinguishment of Public Rights of Way Order |
| TRA 217 | Statutory Objections – Summary of Further Points of Objection and Responses |
| TRA 218 | Supplementary correspondence – NLC letter dated 12 October 2005 |
| TRA 219 | Kelvin Valley Route, Sheet 8, Drawing BT11991/KR/08 |
Cumbernauld Community Councils’ Umbrella Group’s documents

National implications
CG/MO/01 Preferred route presentation, June 1992
CG/MO/02 (as above)
CG/MO/03 Scottish Office response to CARE 80 proposals, 1994
CG/MO/04 (as above)
CG/MO/05 ‘The existing situation’, Babtie Group, 1996
CG/MO/06 ‘The need for the scheme: planning background’, Babtie Group, 1996
CG/MO/07 ‘The two options’, Babtie Group, 1996
CG/MO/08 Travel Choices for Scotland: Strategic Roads Review, 1999 (extract)
CG/MO/09 (as above)
CG/MO/10 CSTCS – A80 Corridor Plan to 2010, September 2002
CG/MO/11 (as above)
CG/MO/12 (as above)
CG/MO/13 Environmental Statement, Non-Technical Summary (extract)
CG/MO/14 (as above)
CG/MO/15 (as above)
CG/MO/16 Article from Scotland on Sunday, 24 February 2002
CG/MO/17 Article from Herald, 29 May 2004
CG/MO/18 Article from Scotland on Sunday, 9 May 2004
CG/MO/19 Article from Herald, 31 July 2003
CG/MO/20 Article from Sunday Herald, 29 May 2005
CG/MO/21 Letter from RAC Foundation, 20 August 2005
CG/MO/22 Letter from AA Motoring Trust, 23 August 2005

Antonine Wall
CG/MO/23 World Heritage Sites: the tentative UK list, 1999
CG/MO/24 Letter from UNESCO regarding Antonine Wall, 29 August 2005

CG/ND/01 Hansard debate, 5 March 1997
CG/ND/02 Letter from Scottish Executive to Mr Dekker, 21 July 2005
CG/ND/03 Letter from Historic Buildings and Monuments, Scotland, 24 May 1990
CG/ND/04 Newspaper article by Katie Grant
CG/ND/05 Photographs of wall and surrounding landscape

Noise
CG/ND/06 Guideline values for community noise, World Health Organisation
CG/ND/07 Letter from Scottish Executive, 30 June 2005

Traffic and engineering
CG/ND/08 Email from Mr Vance to Mr Dekker, 29 July 2005
CG/ND/09 Letter from Scottish Executive, 14 February 2005
CG/ND/10 Letter from Scottish Executive, 2 November 2004
CG/ND/11 Letter from Scottish Executive, February 2004
CG/ND/12 House of Lords Science and Technology Committee, Energy Efficiency, 2005, (abstract)
CG/ND/13 House of Lords Select Committee on Economic Affairs, The Economics of Climate Change, 2005, (abstract)
**Miscellaneous**

CG/BJ/01  Letter from Scottish Economic Planning Department, regarding Extension Area – Outline Plan, 14 October 1975
CG/BJ/02  Hansard, 5 March 1997
CG/BJ/03  Road toll: the high cost of congestion – Article in Herald
CG/BJ/04  Road to ruin – Article from Daily Mail, 26 August 2003
CG/BJ/05  Note from North Lanarkshire councillors
CG/BJ/06  (as above)
CG/BJ/07  Letter from Scottish Development Department (Ancient Monuments), 17 August 1982
CG/BJ/08  Extract from ‘The Ancient and Medieval Worlds’
CG/BJ/09  Letter from Lord Hogg of Cumbernauld, 21 January 2004
CG/BJ/10  Letter from Brigadier Cowan, 16 January 2005
CG/BJ/11  Palacerigg Country Park brochure
CG/BJ/12  Diagram of Cumbernauld, showing ‘motorway band of interest’
CG/BJ/13  Hugh Dobbins, Chief Technical Officer, CDC – Submission to Motorway Forum
CG/BJ/14  Flora and fauna comparison of route options, Mr Johnstone
CG/BJ/15  Annotated photographs of route options
CG/BJ/16  Correspondence from former CDC officers

CG/JF/01  Extract from Dunbarton County Council minutes of 6 September 1973
CG/JF/02  Letter from Historic Scotland regarding Millennium Link, 3 February 1999
CG/JF/03  Letter from Scottish Natural Heritage regarding Millennium Wheel, 8 March 1999

**Health**

CG/WM/01  Knox EG and Gilman EA, Hazard proximities of childhood cancers in Great Britain from 1953-80, Journal of Epidemiology and Community Health, 1997 (abstract)
CG/WM/02  Donaldson K et al, Ultrafine particles, Occup Environ Med, 2001 (extract)
CG/WM/03  Donaldson K et al, Ambient particle inhalation and the cardiovascular system: potential mechanisms, Environmental Health Perspectives, 2001 (extract)
CG/WM/04  Prescott GJ et al, Urban air pollution and cardiopulmonary ill health: a 14.5 year time series study, Occupational & Environmental Medicine, 1998 (extract)
CG/WM/05  Brunekreef B et al, Air pollution from truck traffic and lung function in children living near motorways, Epidemiology, 1997 (extract)
CG/WM/06  Van Vliet P et al, Motor vehicle exhaust and chronic respiratory symptoms in children living near freeways, Environmental Research, 1997 (extract)
CG/WM/09  (not lodged)
CG/WM/10  Children’s environmental health profile – California, 2000
CG/WM/11  Stenfors N, Different airway inflammatory responses in asthmatic and healthy humans exposed to diesel, 2004 (internet item)
Councillor Murray’s documents

GM/01 Extract from ‘Scottish Battles: Mons Graupius’
GM/02 Correspondence from North Lanarkshire Council regarding public consultation exercise; and letter by Councillor Murray; and report on Bog Stank Burn, 1996
GM/03 Correspondence from Councillor Murray and North Lanarkshire Council regarding footpaths, 2002 and 2005
GM/04 Business leaders put McConnell through wringer – Article from Herald, 10 September 2005
GM/05 Revealed: true oil wealth hidden to stop independence – Article from Herald, 12 September 2005
GM/06 Letter from Mr John Freebairn, 4 February 2004
GM/07 Gordon S Maxwell, The Romans in Scotland, 1989 (preface)
GM/08 Supplementary correspondence – Letter from Councillor Murray, dated 14 October 2005; note signed by NLC councillors; and letter from NLC Director of Planning & Development, dated 14 October 2005

Mr Mitchell’s document

SM/1 Cumbernauld Community Councils’ Joint Action Group – petition to Scottish Parliament, and associated correspondence

Mr McKenna’s document

JMcK/1 Auchenkilns roundabout – Correspondence, parliamentary question, and article from Sunday Mail, 31 July 2005